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Penetration

Small Arms

on Bullets

Tissue Simulant Cavity Formation

Handgun Ammunition

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

A comprehensive study was conducted for the Department of Justice to determine what factors influence human incapacitation by handgun bullets. An evaluation of the effectiveness of nearly all commercial handgun bullets was made. As part of this study, each bullet was fired into a gelatin tissue simulant. This report is a supplement to the overall program methodology and results presented in BRL Report entitled: "Ammunition for Law Enforcement: Part I, Methodology for Evaluating Relative Stopping Power and Results." Presented

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#### I. INTRODUCTION

In December 1972, the National Institute of Law Enforcement and Criminal Justice of the Law Enforcement Assistance Administration approved and funded a project, submitted by the Law Enforcement Standards Laboratory (LESL) of the National Bureau of Standards, to conduct a study of the terminal effects of police handgun ammunition. LESL late in 1973 contracted with the U.S. Army Ballistic Research Laboratories (BRL) to conduct the study and prepare a report of its findings. The purpose of the study was to provide federal, state and local law enforcement agencies with a criterion for use in selection of handgun ammunition; a criterion which considers not only the offensive capabilities of the ammunition, but also the safety factors concerning innocent bystanders. The purpose was not specifically to show that studies by previous investigators were invalid, but to bring the salient features of these previous studies together with a more detailed and updated description of the entire scenario to produce a unified approach to the problem which would allow an objective evaluation of handgun effectiveness.

To place the question of handgum effectiveness on the level of an objective approach, three primary terminal characteristics of handgum ammunition were studied:

- 1. Relative Incapacitation of Human Targets (i.e., relative stopping power).
  - 2. Ricochet Hazards.
  - 3. Material Penetration Characteristics.

As the focus of the study was on commercially available handgum ammunition in the caliber range from 0.355 (9mm) through 0.45, an extensive laboratory investigation of all significantly different handgum bullets available to law enforcement agencies in the United States was conducted. The report deals with experiments performed for the relative incapacitation portion of the study from which the following data were extracted:

- 1A. Measurement of the formation and subsequent development of the temporary cavity produced in tissue simulant by each bullet as a function of striking velocity.
- 1B. Measurement of the general dynamic behavior of each bullet as it penetrated the tissue simulant, its stability, and deformation, as a function of striking velocity.

1C. Measurement of the impact velocity by factory loaded ammunition corresponding to each bullet under study when fired from various handguns currently used by law enforcement agencies.

The data presented in the following section were gathered during Part IA of this study. This report is a supplement to the overall program methodology and results. The volume of the data generated during this study requires that the results be presented in three separate reports as follows:

Ammunition for Law Enforcement: Part I, Methodology for Evaluating Relative Stopping Power and Results.

Ammunition for Law Enforcement: Part II, Data on Cavity Formation and Bullet Deformation During Penetration of Tissue Simulant.

Ammunition for Law Enforcement: Part III, Photographs of Bullets Recovered After Impacting Tissue Simulant.

## II. EXPERIMENTAL TECHNIQUES

The purpose of this portion of the study was to determine the effect of such bullet parameters as geometry, construction, mass, velocity, and manufacturer on the penetration through tissue simulant and the ultimate effect of these parameters on wound formation and resultant relative stopping power.

- 1. Ammunition. The ammunition used in this phase of the study consisted primarily of hand loaded ammunition in calibers .357 through .45. Bullet velocities were adjusted such that striking velocities varied nominally between 120 m/s and 700 m/s. Bullets used in this study were obtained from commercial manufacturers within the United States. All weights and type bullets available from these manufacturers were evaluated. The manufacturers were chosen such that the vast majority of bullets used in commercial handgun cartridges could be evaluated. The actual bullet manufacturers considered were:
  - a. Winchester-Western
  - b. Remington-Peter
  - c. Super Vel
  - d. Smith & Wesson
  - e. High Precision
  - f. Zero

- g. Hornady
- h. Sierra
- i. Speer
- j. Glaser
- k. MB Associates
- 1. KTW

Obviously, the above list does not include all manufacturers of ammunition for two reasons. First, many other manufacturers use the above bullets in their loaded cartridges and differences in stopping power would only depend on velocity, and second, this list comprises over 90 percent of the bullets available on the market. Concurrence in using the above list was given by the LESL project officer.

For the actual gelatin firings, actual service weapons were not used. Since one of the more important parameters under investigation was the effect of bullet velocity on stopping power, it was necessary to examine velocity levels below and well above those experienced from standard cartridges from standard weapons. In the case of high velocity testing, chamber pressures exceeded those permissible in standard handguns. For safety reasons, then, Mann test barrels were used. At this point it should be noted that even though stopping power results were generated up to velocities approaching 700 m/s, the powder charges necessary to attain these velocities from standard handguns may be well above acceptable safety limits and should be approached with caution.

The justification for testing at non-standard velocities was manyfold. As is well documented in previous studies by many investigators, different type bullets deform differently as a function of velocity. was the purpose of this study to develop a general criteria which requires that stopping power be known as a continuous function of velocity. To this end, it was important to know the degree of degradation experienced in stopping power if lower than standard velocities are used, i.e., velocities below which deformation of the bullet occurs. Also, it was important to determine if the effects of possible excess deformation or fragmentation of the bullet at higher than standard velocities enhances or degrades stopping power. Additionally, if only commercial loadings were used and stopping power reported for these particular cartridges, future changes in loading specifications by a manufacturer to alter velocity would make the stopping power estimate meaningless. Also, bullet muzzle velocity depends on the particular type handgun being used and it was felt that law enforcement agencies should test fire their weapon/ammunition combination to determine actual muzzle velocities which in turn could be used to calculate the stopping power more precisely.

2. <u>Tissue Simulant</u>. The target material used was gelatin purchased from the Kind and Knox Gelatin Company specified as Ordnance Type 250A. The gelatin powder was mixed with water (20 percent gelatin by weight) to form 15cm x 15cm x 30cm blocks for testing. Given below is a standard "recipe" for preparing the gelatin blocks for testing.

#### a. Materials.

- (1) Pharmagel A. Gelatin, Kind and Knox Gelatin Company, Ordnance Type 250A. Home Office: Johnstown, New York; production plant: Camden, New Jersey.
- (2) Thymol, available from Fisher Scientific Company and many local chemical and pharmaceutical companies.
- (3) Pyrex or stainless steel container, 20 to 30 liter capacity for mixing gelatin.
- (4) Stirrers, electric, heavy duty.
- (5) Containers, stainless steel, for use as molds, 15cm wide, 15cm high, 30cm long. Other size containers are used depending upon the size gelatin target desired.

#### b. Method.

Place 12,000 grams of hot water (at least 65°C) in the 20 to 30 liter container. Place two electric stirrers in the hot water. It has been found that it is preferable to place one stirrer near the top of the container and the other stirrer near the bottom. Add three grams of thymol\* and dissolve in the hot water. Add 3,000 grams of Pharmagel A to the hot water. It is often helpful to supplement the stirring by manually breaking up any lumps of undissolved gelatin with a stainless steel rod or paddle.

After the gelatin has completely dissolved, which usually requires 5 to 15 minutes, turn off the stirrers and remove the stirrers from the gelatin solution. Allow bubbles and foam to rise to the surface of the gelatin. This usually requires 15 to 20 minutes.

The 20 percent gelatin solution is then transferred to the  $15 \, \mathrm{cm} \times 15 \, \mathrm{cm} \times 30 \, \mathrm{cm}$  containers. If the original mixing container does not have a spigot at the bottom, it is necessary to remove the foam from the top of the gelatin before transferring the solution. Allow the gelatin to remain at room temperature for at least one hour after transferring. Any additional foam which rises to the surface may be removed.

 $ilde{}^{\circ}$ Cinnamon oil may be substituted - one drop per liter.

Place the gelatin in a refrigerator, blood bank, or similar device at 0° to 5° C. overnight. The gelatin may be removed from the stainless steel container by placing the stainless steel container in a container of hot water. After about 15 seconds, loosen the gelatin from the sides of the container with a spatula and after one to two minutes, remove the gelatin from the hot water. The gelatin may be removed by inverting the gelatin container. Allow the gelatin to remain at room temperature for about one hour. The gelatin is then placed in heavy duty plastic bags to prevent evaporation which will drastically change the consistency of the gelatin. The 20 percent gelatin is usually stored at 10° C. (50°F.) since the consistency of the gelatin is a function of the temperatures.

### X-Ray Measurements.

Flash x-ray photographs were taken for each test shot of the bullet penetrating the gelatin targets. These photographs provide information on the extent and type of deformation experienced by the bullets. Figures 1 through 3 show the experimental set-up employed and the relation of the x-ray tubes to the gelatin target. Figure 4 shows a typical x-ray photograph for a jacketed hollow point bullet penetrating gelatin. Similar data were taken for all other bullets. Estimates of the presented area and cross-sectional area versus penetration depth which were calculated for each bullet can be found in the accompanying tables. Presented area is defined as the component of the cross-sectional area normal to the line of flight. Cross-sectional area is the maximum area of the bullet at each penetration depth.

## d. Cavity Measurements.

High-speed motion pictures were taken for each test shot to determine how the temporary cavities in gelatin varied in size and shape for different bullet types and velocities. The relation of the high-speed camera to the gelatin target can be seen in Figure 1. Photographic floodlights were placed behind the gelatin target to provide backlighting for the motion pictures as seen in Figure 2.

A 60 meter roll of film was used for each shot, with maximum attained film speed of approximately 10,000 fps.\* The formation and subsequent growth of the cavity is clearly shown in these movies. A typical sequence from a high-speed movie is shown in Figure 5 for a .45 caliber full jacketed bullet. Typically, the bullet itself is discernible in these films but refractive effects of the gelatin and the formation of the cavity preclude the actual measurements of the bullet shape or orientation from the movies. Consequently, the x-ray photographs, unaffected by the presence of the gelatin, were taken to observe bullet behavior during penetration.

The measure chosen as the indicator of the actual damage produced in tissue was the maximum temporary cavity (MTC) formed in the gelatin.

\* frames/sec

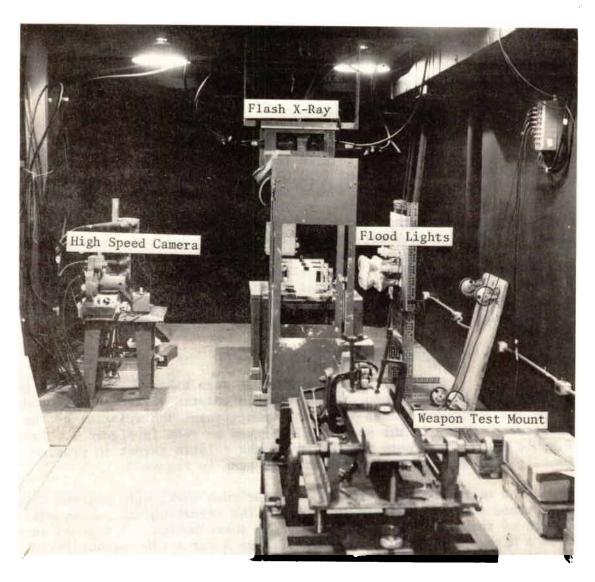


Figure 1. Photograph of Small Arms Test Range

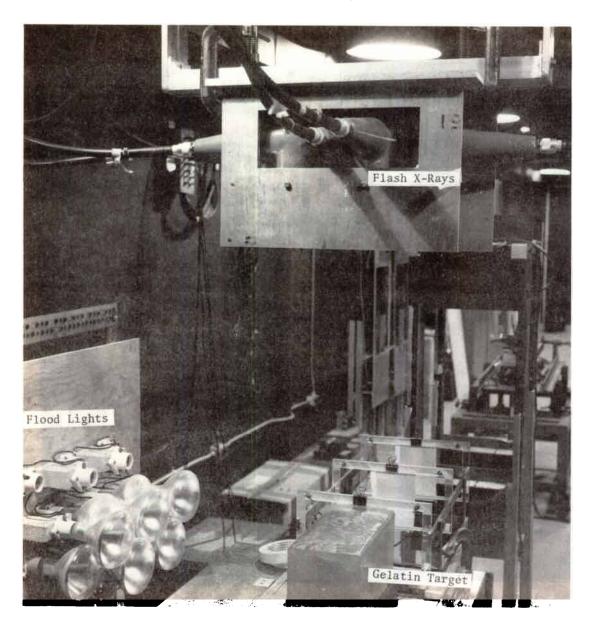


Figure 2. Relationship of X-Ray Tubes to Gelatin Target

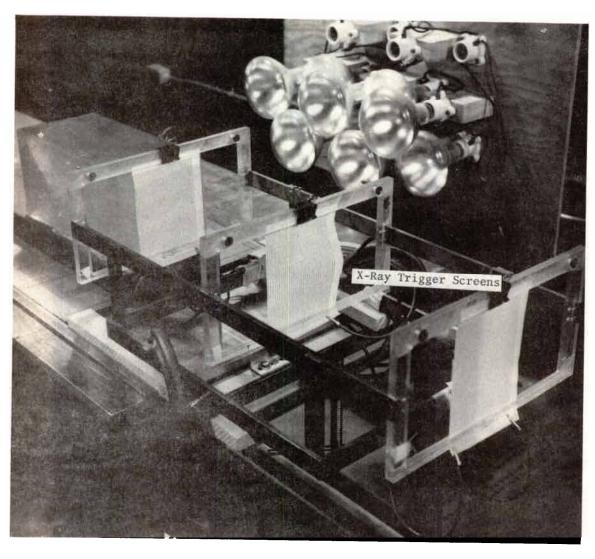


Figure 3. Relationship of X-Ray Trigger Screens and Photographic Lights to the Gelatin Target

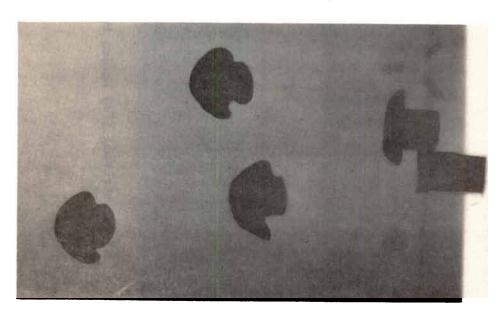


Figure 4. X-Ray Photograph of a JHP, .357 Bullet Penetrating Gelatin

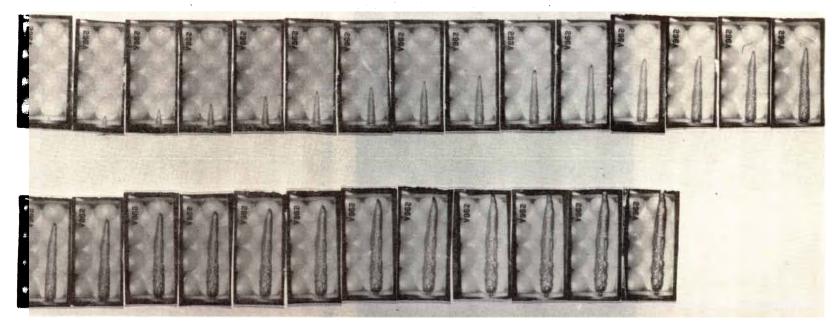
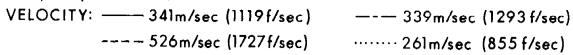


Figure 5. High-Speed Film Sequence of a .45 Caliber Ball (FJ) Bullet Penetrating Gelatin



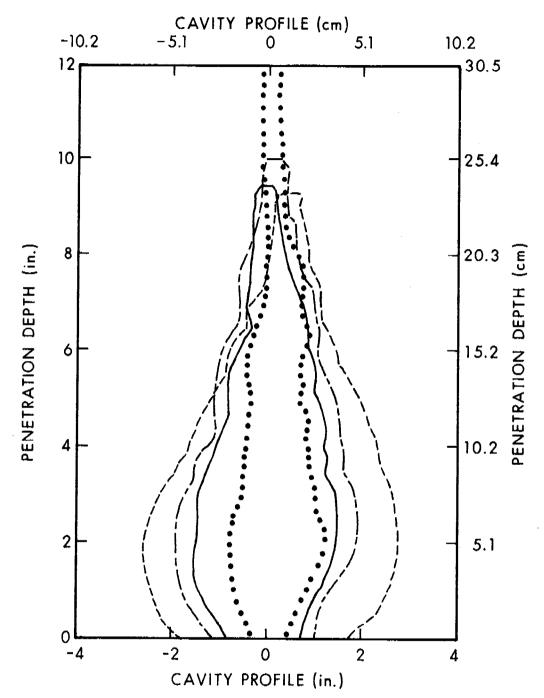


Figure 6. Tracing of Typical Maximum Temporary Cavities Formed in Gelatin Tissue Simulant by Handgun Bullets.

The film for each test shot was viewed on a motion analyzer and the contour of the cavity traced frame by frame. A typical tracing is shown in Figure 6. A digitizer was then used to record the scaled coordinates of the envelope of these cavities from these tracings at increments along the z-axis of approximately 5mms.

#### III. RESULTS

Data recorded by the 16mm high-speed camera was analyzed using a Telecomputing Telereadex Model 29E Film Analyzer. For each round fired the size and shape of the maximum temporary cavity formed in the gelatin simulant was measured versus the depth of penetration of the bullet. These measurements were taken at approximately 5mm increments along the bullet trajectory through the simulant. These data were stored on computer cards for later tabulation and subsequent plotting of the resultant cavity contours.

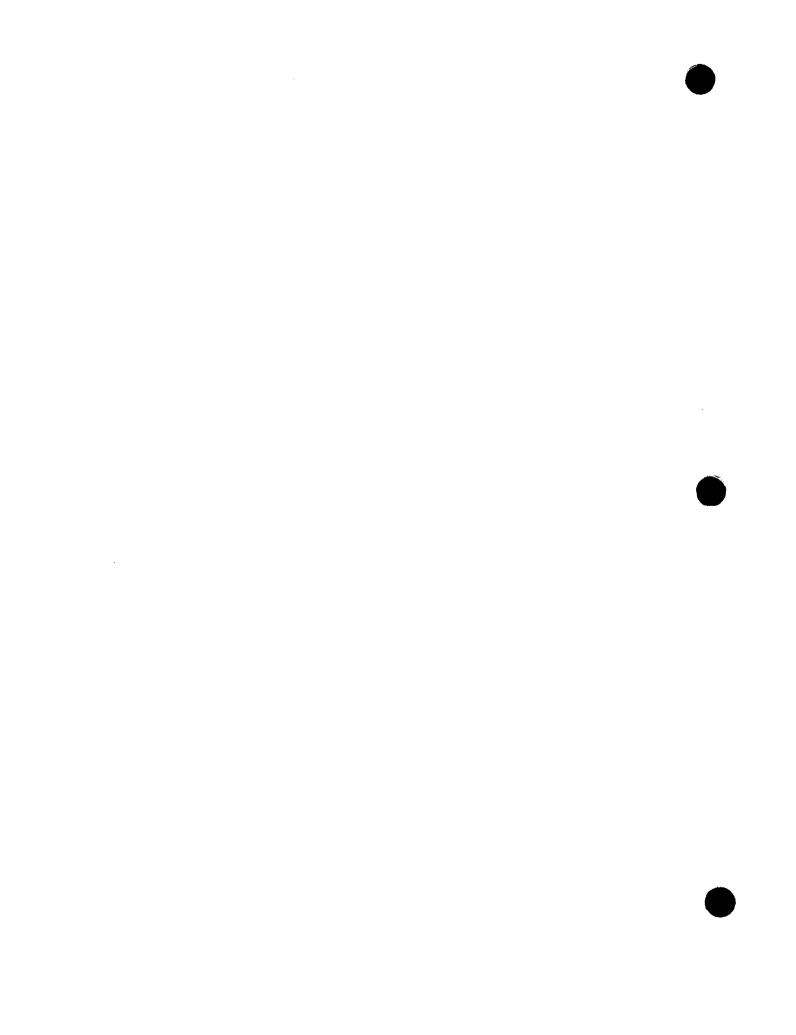
The multiple flash x-ray system provided photographs of bullet deformation during penetration of the simulant. These records were analyzed using a Telecomputing Chart Reader, Model 099. Both the cross-sectional area of the bullet and its area normal to the direction of the bullet motion, i.e., presented area, were measured versus penetration depth for each test round fired and this data was stored on computer punch cards for later processing.

Both the digitized high-speed cinematographic and flash x-ray data were then processed using the Ballistic Research Laboratories BRLESC\* high-speed computer to determine relative incapacitation indices for all rounds fired. Additionally, the data recorded for each round was printed in tabular form together with a computer plot of measuring maximum temporary cavity formed by each bullet in tissue simulant. Presented in Appendix A are computerized records organized as follows:

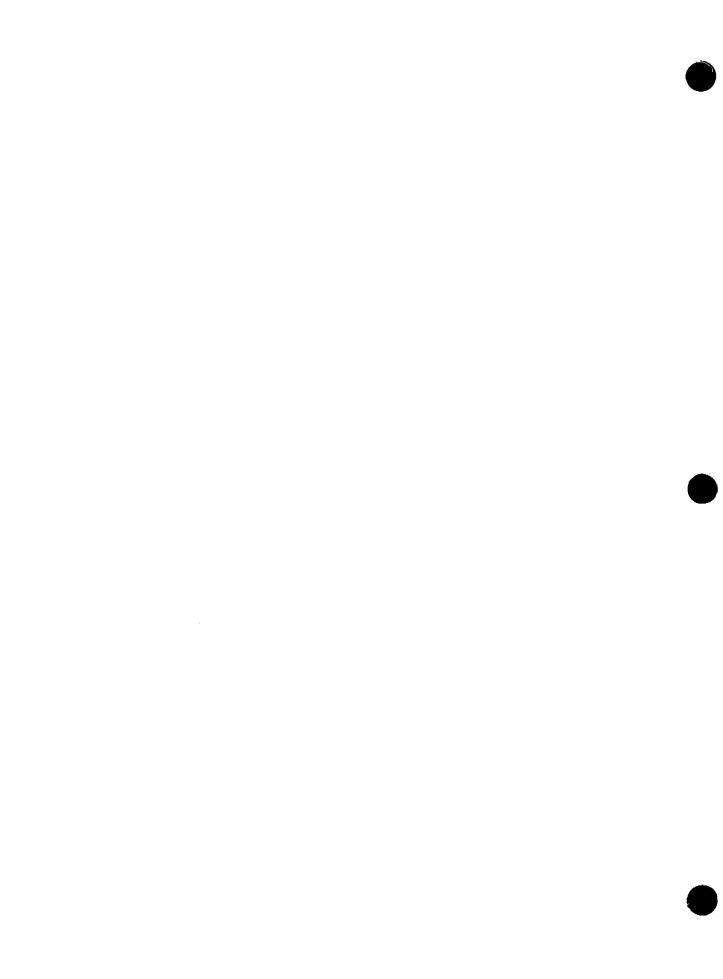
- 1. Manufacturers are listed alphabetically.
- 2. Within manufacturer, the data are presented from smallest to largest caliber.
- 3. Within caliber, the data are presented in the following order for construction type:
  - a. Full Jacket (FJ)
  - b. Full Metal Case (FMC)
  - c. Full Metal Jacket (FMJ)
  - d. Jacketed Hollow Point (JHP)

<sup>\*</sup> Ballistic Research Laboratories Electronic Scientific Computer.

- e. Jacketed Soft Point (JSP) (JFP)
- f. Lead (L)
- g. Lead Hollow Point (LHP)
- h. Lead Round Nose (LRN)
- i. Lubaloy
- j. Metal Piercing (MP)
- k. Round Nose (RN)
- 1. Semi-Wadcutter (SWC)
- m. Wadcutter (WC)
- 4. Within construction type, the data are presented from smallest to largest mass in grains.



APPENDIX A



PROJECTILE VELOCITY (MPS) -- 514.81

PROJECTILE TYPE -- GLASER, SSG, 9MM

	PROJECTILE DEFORMATION				I T	CAVITY MEASURE	ÆNTS	•		
		RATION NCE (MM)	PRESENTE AREA (MA			-SECT (MM**2)	I I I	PENETRATION DISTANCE (MM)	CAVITY RADIUS	(MM)
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PROJECTILE TYPE --GLASER, SSG, 9MM

PROJECTILE VELOCITY (MPS) --514.81

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM)	PRESENTED AREA (MM##2)	CROSS-SECT AREA (MM*#2)	I PENETRATION I DISTANCE (MM) I 0 I 6 I 11 I 17 I 23 I 29 I 35 I 41	CAVITY RADIUS(MM) 43 47 51 54 58 60 61
PENETRATION DEPTH 200 200 200 200 200 200 200 200 200 20	-50 ORVITY PROF		I 47 I 53 I 59 I 65 I 71 I 76 I 82 I 88 I 94 I 100 I 106 I 112 I 118 I 124 I 130 I 136 I 148 I 159 I 159 I 177 I 183 I 185	64 64 65 64 63 62 61 60 57 55 52 49 46 43 40, 37 33 28 24 19 14 10 8 3

PROJECTILE TYPE --GLASER, SSG, . 357MAG PROJECTILE VELOCITY (MPS) --404.77

PROJECTILE DE	FORMATION	I CAVITY MEASUR	EMENTS
PROJECTILE DE PENETRATION DISTANCE (MM)	PRESENTED CROSS-SECT	I PENETRATION I DISTANCE (MM) I O	CAVITY RADIUS(HM) 30 33 35 37 41 43 45 47 47 47 47 46 45 44 41 41 39 37 34 30 27 26 24 23 21 19 17
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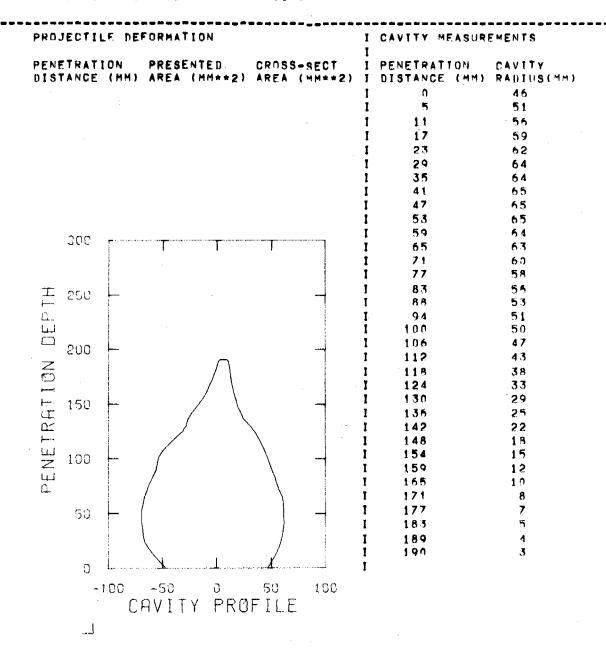
PROJECTILE TYPE -- GLASER, SSG, . 357 MAG PROJECTILE VELOCITY (MPS) -- 440.44

PROJECTILE DEFORMATION	1 CAVITY MEASUREMENTS
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PROJECTILE TYPE --GLASER, SSG, . 36SPEC PROJECTILE VELOCITY (MPS) --566.62

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM)	PRESENTED AREA (MM++2)	CROSS-RECT AREA (MM++2)	I PENETRATION I DISTANCE (MM) I O I 6 I 11 I 17 I 23 I 29 I 35 I 41	CAVITY RADIUS (MM) 52 56 60 63 66 68 69 70	
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PROJECTILE TYPE --GLASER, \$36, . 36SPEC PROJECTILE VELOCITY (MPS) +-576.07



PROJECTILE TYPE --GLASER, SSG, + 357MAG PROJECTILE VELOCITY (MPS) --658.37
PROJECTILE PIAMETER (CM) -- 9.068

PROJECTILE DEFORMATION I CAVITY MEASUREMENTS PENETRATION PRESENTED I PENETRATION CROSS-SECT CAVITY DISTANCE (MM) AREA (MM\*\*2) AREA (MM\*\*2) I DISTANCE (MM) RADIUS(MM) n 4.5 T Ω.. أجليا TRSTICN Ð. 1.75 J -100 -50 Ç CAVITY PROFILE

PROJECTILE TYPE --GLASER, SSG, .357MAG PROJECTILE VELOCITY (MPS) --655.39

PROJECTILE DEF	FORMATION		I CAVITY MEASURE	MENTS
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VETRATION 100			I 112 I 118 I 124 I 130 I 136 I 142	52 48 44 39 35 29
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ROUND NUMBER - 261

PROJECTILE TYPE -HI-PRECISION, JHP PROJECTILE VELOCITY (MPS) -264.12

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM)	PRESENTED AREA (MM*+2)	CROSS-SECT	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS(MM)
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PROJECTILE TYPE -H1-PRECISION, JHP PROJECTILE VELOCITY (MPS) -311.98

PROJECTILE DIAMETER (CM) - 0.907

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	NETRATION STANCE (MM) 12 37 68 98 128	PRESENTED AREA (MM**2) 85 113 58 72 49	85	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35 I 41 I 47	16 19 22 24 26 26 27 27
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PROJECTILE TYPE -HI-PRECISION, JHP PROJECTILE VELOCITY (MPS) -343.63
PROJECTILE DIAMETER (CM) - 0.907

PROJECTILE PEFORMATION I CAVITY MEASUREMENTS				EMENTS	
	FTRATION TANCE (MM) 18 45 77 108 138	PRESENTED AREA (MM**2) 121 156 60 60 76	CROSS=SECT AREA (MM**2) 121 156 60 60 76	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35	19 23 26 28 31 31 32
PENETRATION DEPTH		-sa o VITY PROF	50 100 ILE	1 41 47 1 53 1 53 1 59 1 65 1 71 1 77 1 83 1 95 1 107 1 107 1 107 1 113 1 125 1 137 1 148 1 150 1 178 1 196 1 196 1 196 1 196 1 208 1 208	32 32 32 31 30 29 27 25 22 21 20 20 20 20 20 21 11 11 11 11 11 11 11 11 11

# ROUND NUMBER 260 CONTINUED

1	285	5
1	291	5
Ī	298	4
1	303	4
1	309	4
Ī	316	3

PROJECTILE TYPE -HI-PRECISION, JHP PROJECTILE VELOCITY (MPS) -356.07

			CAVITY MEASUREMENTS	
PENETRATION DISTANCE (MM)	PRESENTED AREA (MM**2)	CROSS-SECT	T I PENETRATION T DISTANCE (MM)	CAVITY RADIUS(MM)
13	108		1 0	19
4 1	184		1 5	22
7.4	75	76	1 11	27
104	66	56	1 17	31
133	7 n	70	t 23	34
			1 59	35
			I 35	36
			1 41	36
			1 47	35
200			I 53	35
300 F	T ili	T 1	I 59 I 64	34 33
			1 7n	32
	( (		76	32
I 25U -	} \		1 82	32
<b>⊢</b> .			1 88	31
Δ.	) \		7 94	30
L.)		ļ	t too	28
← 200 ←			t 106	25
Z	/ \		115	24
	/	<u> </u>	117	22
)1			I 123	53
☐ 150 F			I 129	53
ir.			1 135	21
<del></del>		\	I 141	Σu
当 100 上	/	1	1 147	19
<u>~</u> .			1 153	1.8
La.d		i	I 159 I 165	18 17
Li.	/	i	1 170 I 170	16
5.0	\	i	1 175	15
		j	1 182	14
:	/		I 188	13
		į	1 194	12
(j		نے یا سے سال	7 200	1.1
-100	<b>-5</b> 0 0	50 100	306	10
	VITY PROF	TIE	1 212	7
C, M	VIIIIIII		218	9
			584	흥
			550	7
		· ·	235	7
			241	6
•			247	5
			253	5
			E 259 E 265	5 4
			I 265 I 271	4
			1 271 1 276	3
		36	* * * * * * * * * * * * * * * * * * * *	\. <u>.</u>

# ROUND NUMBER 265 CONTINUED

1	282	3
Ī	288	3
I	294	3
I	300	3
1	304	2
1	0	n

PROJECTILE TYPE -HI-PRECISION, JHP PROJECTILE VELOCITY (MPS) -389.77
PROJECTILE DIAMETER (CM) - 0.907

PROJECTILE DEFORMATION	I CAVITY MEASUREMENTS
PENETRATION PRESENTED CROSS=BISTANCE (MM) AREA (MM++2) AREA (100 100 42 199 199 76 186 187 187 187 187 180	MM**2) I DISTANCE (MM) RADIUS(MM)  I 0 22 I 5 26 I 11 31
300 H 250 200 ND 1150 150 -100 -50 0 50 CAVITY PROFILE	I 53 41 I 59 40 I 65 39 I 71 37 I 77 36 I 83 35 I 88 33 I 94 32 I 100 31 I 106 29 I 112 28 I 118 27 I 124 24 I 130 23 I 136 23 I 142 21 I 148 20 I 153 16 I 159 17 I 165 17 I 171 16 I 177 14 I 183 13 I 189 12 I 195 10 I 207 9 I 213 8 I 219 8 I 225 7 I 231 7 I 236 6 I 242 5 I 248 5 I 254 4 I 260 4 I 263 3 I 264
	38

PROJECTILE HASS (GH) + 7.128

PROJECTILE TYPE -HI-PRECISION, JHP PROJECTILE VELOCITY (MPS) -409.13

PROJECTILE DIAMETER (CM) - 0.907

PROJECTILE DEFORMATION		I CAVITY MEASUR	EMENTS	
	AREA (MM**2)	AREA (MM++2)	I I PENETRATION I DISTANCE (MM)	
17 47	134 270	134 272	1 0 1 5	27 31
81	103	103	I 11	34
109	130	130	i 17	38
136	114	114	1 23	41
		- " '	1 29	44
			1 35	46
			I 41	47
			I 47	47
			I 53	47
300	·		1 59	46
	, ,	'	I 65	44
			I 71	42
_			1 77	41
250 L			I 83	41
<u>^</u>			I 88	39
ū Ι	/ \		I 94	37
			1 100	36
200	/ \	7	I 106	34
<u>Z</u> '		}	1 112	31
ט	}	ļ	I 118	30
PENETRATION 100 100 100 100 100 100 100 100 100 10	/ \	1	1 124	28
or too		7	1 130	26
~	/		1 136	24
<del> </del>	/		I 142	55
岁 100 卜			I 148 I 154	20 19
2 100	/		I 160	17
	)		1 166	15
		\	1 172	15
50 -		1 4	1 178	15
	\	)	1 183	15
	\ /	/	I 190	14
	,\ , /		1 195	13
0 —			201	12
-100	-50 0	50 100	207	9
		100	213	8
L.F	AVITY PROF	1 L E	219	7
			225	6
			231	5
			237	5
			243	4
			249	5
			255	4
			256	3

PROJECTILE TYPE -HI-PRECISION, JSP PROJECTILE VELOCITY (MPS) -333.11

PROJECTILE 1	DEFORMATION	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	I CAVITY MEASUR	EMENTS
	PRESENTED  1) AREA (MM**2)		I PENETRATION I DISTANCE (MM)	
12 40	58 108	58	I n	18
76	114	108	I 5	21
111	68	114 58	1 11	24
149	67	67	I 17 I 23	27 29
* * *	~ /	07	I 29	31
			1 35	31
			1 41	31
			1 46	30
			I 52	29
300			1 58	29
00.0	1 11	1	1 64	28
			I 70	25
			I 75	23
II 250		_	I 81	24
			I 87	24
표 250 a. 따			I 93	23
	1		I 99	22
200 /		-	1 105	23
N N	1		1 110	22
			I 155 I 116	21
<b>→</b>			1 128	21
± 150 −	/		1 134	20 20
~	) (		1 140	20
K K			1 145	19
当100			1 151	18
<u>u</u> j			1 157	19
ά.	}		1 163	19
L. II.			I 169	19
50 -			1 175	19
			I 180	19
	\ /		I 186	1.8
			I 192	19
0 1			I 198	18
-100	-50 0	(31.) (.1.)(.)	I 204	17
	CAVITY PROF		I 210	17
C	ZELVILL LINUI		I 215	16
			I 221	16
			I 227	17
			1 233	16
			I 239	16
			I 245	15
			1 250 1 256	15
			I 256 I 262	15 15
			I 268	15
			1 274	14
		40	. 6/4	, 4

## ROUND NUMBER 268 CONTINUED

I	279	14
1	285	13
İ	291	13
I	297	12
1	303	12
1	309	12
i	315	12
Ĭ	n	0
Ī	n	0

PROJECTILE TYPE -HI-PRECISION, JSP PROJECTILE VELOCITY (MPS) -342.86
PROJECTILE DIAMETER (CM) - 0.907

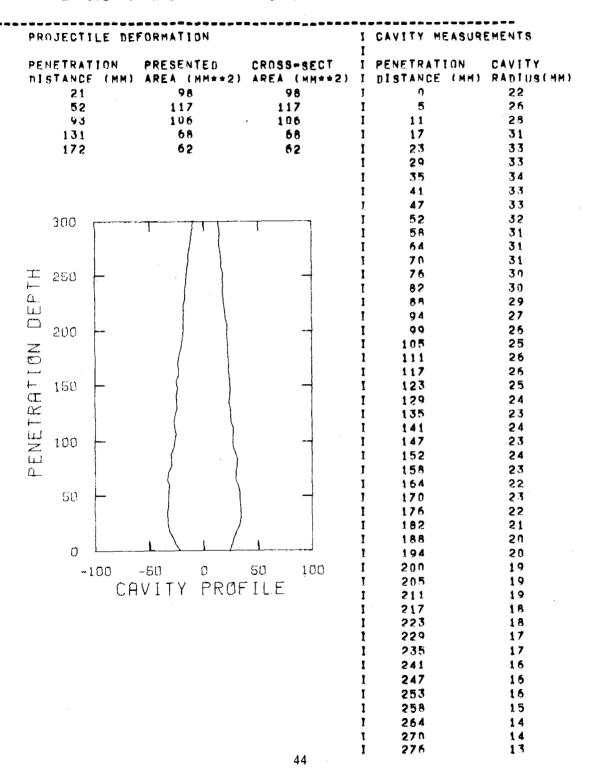
PROJECTILE DE	FORMATION	****	I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 18 47 83 118 156	PRESENTED AREA (MM**2) 85 107 120 66 47	CROSS-SECT	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35 I 41 I 47	CAVITY RADIUS (MM) 17 21 24 26 28 29 30 30
	-50 B VITY PROF	50 100 ILE	219 225 231 237 242 248 254 260 266 272	32222222222221108998777877787775555444414

## ROUND NUMBER .263 CONTINUED

I	284	14
Ī	290	13
I	296	12
I	302	12
I	308	11
t	313	11
Ī	318	11
Ţ	n	0
Ť	n	n

ROUND NUMBER - 267

PROJECTILE TYPE -HI-PRECISION, JSP PROJECTILE VELOCITY (MPS) -379.10



## ROUND NUMBER 267 CONTINUED

1	282	12
1	287	12
Ī	293	12
Ī	299	11
1	305	11
Ĭ	311	11
Ĭ	317	11
ī	323	10
ī	0	n

PROJECTILE TYPE -HI-PRECISION, JSP PROJECTILE VELOCITY (MPS) -387.29

PROJECTILE DEFORMATION		I CAVITY MEASUREMENTS		
PENETRATION DISTANCE (MM) 16 48 89 129 171	79 79 1 110 110 1 127 129 1 71 71		I PENETRATION CAVITY I DISTANCE (MM) RADIUS(MM) I 0 20 I 6 25 I 12 26 I 18 31 I 24 32 I 29 33 I 35 33 I 41 33	
	-50 C VITY PROF	50 100 ILE	I 47 I 53 I 59 I 65 I 71 I 77 I 83 I 89 I 101 I 107 I 113 I 119 I 125 I 131 I 143 I 149 I 155 I 161 I 173 I 178 I 184 I 196 I 202 I 208 I 208 I 214 I 220 I 226 I 238 I 244 I 250 I 256 I 268 I 274 I 280	33 31 31 31 31 31 31 31 31 31 31 31 31 3

1	286	14
I	292	13
1	298	13
1	304	12
I	310	11
1	316	11
1	321	11
1	n	0
Ī	n	. 0

PROJECTILE TYPE -HI-PRECISION, JHP PROJECTILE VELOCITY (MPS) -270.93

PROJECTILE DEFORMATION		I CAVITY MEASUREMENTS		
PENETRATION DISTANCE (MM) 11 34 61 87 114	PRESENTED AREA (MM++2) 104 153 151 138 134		PENETRATION DISTANCE (MM)  0 1 6 1 11 17 1 23 29 1 35	CAVITY RADIUS(MM) 18 21 25 28 31 32 34
	-50 0 IVITY PROF	50 100	41 47 53 58 65 70 76 82 88 94 100 106 112 117 123 129 135 141 147 153 159 165 171 177 188 190 206 218 220 236 241 247 259	35 36 36 35 35 35 37 37 37 37 37 37 37 37 37 37 37 37 37
		I I I	271	1 0 9 9

## ROUND NUMBER 250 CONTINUED

t	283	9
l	289	8
Ī	294	8
ľ	300	8
l	306	8
ľ	312	8
ľ	318	8
ľ	321	8
	Λ .	n

ROUND NUMBER - 249

PROJECTILE TYPE -HI-PRECISION, JHP PROJECTILE VELOCITY (MPS) -303.28
PROJECTILE DIAMETER (CM) - 1.092

PROJECTILE DEFORMATION			I CAVITY MEASUREMENTS	
PENETRATION DISTANCE (MM) 12 37 67 95 122	PRESENTED AREA (MM++2) 102 161 138 173 154	CROSS-SECT AREA (MM++2) 102 169 139 173 161	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35 I 41 I 47	CAVITY RADIUS(MM) 21 25 30 34 36 39 41 42 43
	-50 OVITY PROF		I 52 I 58 I 64 I 70 I 76 I 82 I 93 I 93 I 105 I 111 I 123 I 129 I 134 I 140 I 146 I 152 I 158 I 164 I 169 I 167 I 187 I 187 I 193 I 199 I 205 I 216 I 228 I 240 I 246 I 246 I 252 I 263 I 263 I 269 I 275	44 44 43 42 41 40 33 33 33 33 28 27 22 22 21 20 20 21 21 21 21 21 21 21 21 21 21 21 21 21

I	281	9
1	287	9
I	293	8
I	299	7
1	304	7
1	310	7
Ţ	316	7
1	322	5
·		

PROJECTILE TYPE -HI-PRECISION, JHP PROJECTILE VELOCITY (MPS) -347.55

			I CAVITY MEASUREMENTS	
PENETRATION Distance (MM)		AREA (MM*+2)	I I PENETRATION I DISTANCE (MM)	
19	149	150	1 0	28
44	246	246	1 5	33
76	228	228	1 11	38
105	249	250	1 17	41
134	241	248	1 23	46
			1 29	49
			I 34	51
•			1 40	52
			1 46	53
200 -			1 52	54
300		i i	I 57 I 63	5 4 5 3
4	} }		1 69	52
			I 75	5 i
I 250 ├	1	4	I 81	50
⊢			I 86	49
Δ.			1 92	48
Ш			1 98	47
<sup>—</sup> 200 –	\	$\dashv$	1 104	47
ļ.	/	*	I 110	4.4
N	/	ļ	1 115	42
<del></del>	\ .	\	I 121	38
<u>+</u> 150 +	.)	\	I 127	38
NETRA 100 -	{		1 133	37
	/		I 139	35
ا ممالیا		)	I 145	32
岁 100 上			I 150	30
ш	}		I 156	30
Δ	/		1 162	28
50			1 167	26
30			1 173	24
			I 179	5.5
			1 185	20
0			I 191 I 196	19 19
	-50 0	50 100	1 202	18
-100			1 208	17
U I	AVITY PROH	FILE	1 214	16
			1 220	15
			1 225	14
			1 231	14
			i 237	13
			1 243	12
			I 248	11
			I 254	10
			1 260	9
			1 256	8
			1 272	8

I	277	7
1	283	7
1	289	. 6
I	295	6
I	301	5
Ī	306	6
Ī	312	5
Ĭ	318	5
Ŧ	0	^

PROJECTILE: TYPE -HI-PRECISION, JHP PROJECTILE VELOCITY (MPS) -354.83

PROJECTILE DIAMETER (CM) = 1.092

PROJECTILE DEFORMATION			I CAVITY MEASUREMENTS		
	NETRATION STANCE (MM) 13	PRESENTED AREA (MM++2) 127	CROSS-SECT	I I PENETRATION I DISTANCE (MM) I O	CAVITY RADIUS(MM) 27
	39	262	262	i š	31
	72	253	253	I 11	36
	101	260	261	1 17	39
	131	253	253	I 23	4.4
	1			I 29	46
				I 35 I 41	48 50
				1 47	50 52
				1 53	53
	300			Ī 59	53
		$\Box$		I 65	53
				1 71	53
Ξ	250 -	1		1 77	51
<del> </del>		/ /	İ	I 63	50
4				I 89 I 94	48 45
				1 100	45
	200		. 🕂	1 107	43
ON		}		1 112	41
	.			1 118	39
Œ.	150	)		1 124	38
Œ		/	\	1 130	35
2		/		I 136 I 142	34 31
NET		/		1 148	30
Z	100	/	) -	1 154	27
13 13		/		1 160	25
۷۲.	l			I 166	24
	50 <del> </del>			172	<b>2</b> 2
				1 178	21
	ļ		/	I 184 I 190	21 21
	o L			I 195	19
				i 201	18
		-50 0		1 207	17
	CA	VITY PROF	ILE :	I 213	16
				219	1.4
					13
				231 1 237	11
			• •		10 10
					9
			·		8
			j		8
			1	267	8
			]		6
			]		6
			<b>54</b> + 1	285 290	5 5

I

FROJECTILE TYPE -HI-PREC, JHP(HEMI) PROJECTILE VELOCITY (MPS) -290.29

PROJECTILE DEFORMATION			I CAVITY MEASUREMENTS	
PENETRATION DISTANCE (MM) 11 35 65 94	PRESENTED AREA (MM**2) 99 102 111 104	CROSS-SECT AREA (MM**2) 99 103 111	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17	CAVITY PADIUS (MM) 19 21 24 26
124	107	109	1 23 1 29 1 35 1 41 1 47	28 29 30 29 29
300			I 53 I 59 I 65	29 29 28 26
E 250			I 76 I 82 I 88 I 94	26 27 26 25
ND -			I 100 I 106 I 112 I 118 I 124	27 26 24 24 25
150 SU SU 100			1 130 1 136 1 142 1 148	24 24 23 21
0. 50				20 20 19 17
c L			1 189 I 195	17 17 17 16
	-sn o VITY PRØF	1	1 207 1 213	16 17 17 16
		) 1 . )	1 231 1 236 1 242 1 248	15 16 16 15
		) ) )	260 266 272	14 13 12 12
		55	278	11

#### ROUND NUMBER PT4 CONTINUED

1	284	10
Ì	290	9
I	296	8
1	301	8
1	<b>3</b> 07	8
1	313	8

PROJECTILE TYPE -HI-PREC, JHP(HEMI) PROJECTILE VELOCITY (MPS) -342.47

PROJECTILE DEFORMATION			I CAVITY MEASUREMENTS	
PENETRATION Distance (MM)	PRESENTED AREA (MM**2)		T I PENETRATION I DISTANCE (MM)	CAVITY RADIUS(MM)
14	109	100	1 0	27
4.0	125	127	1 5	31
71	139	139	1 11	35
9.6	1.45	145	I 17	38
125	139	144	1 23	41
			I 54	44
			1 35	45
			1 41	46
			1 47	48
			1 52	49
308	T	T	I 58	49
			1 64	48
			j 7n	47
T /21:02		j	I 76	47
± 250 ⊨		-	I 82	45
$\overline{U}$	/		I 88	45
للنا			I 94	4.5
aeo 📙	/ /		I too	42
	/ /		1.05	41
N O		1	I 111	40
).	/		I 117	39
⊢ 150 <u></u>	/ /	i	I 123	35
CE 100	/ (		I 129	32
LT.			I 135	30
<b>+</b>		'	141	26
꽃 108 누		ŧ.	1 147	26
Li J		\$	I 153	25
	1	i	I 158	25
	1	i	1 164	24
5U <del> </del>	1		1 170	23
	\		1 176	21
			1 182	50
ş 			I 188 I 194	18 17
o L	<u> </u>	· <del></del>	I 200	16
-100 -	50 O E		1 206	15
			7 211	14
, CHV	/ITY PROFI		217	1.3
			223	12
			550	11
			235	10
		•	T 241	9
			247	9
			. 253	8
			259	8
			264	8
		•	270	8
			276	,

## ROUND NUMBER 270 CONTINUED

ľ	282	7
1	288	7
ľ	294	6
Ì	300	6
1	306	5
ľ	312	5

PROJECTILE TYPE -HI-PREC, JHP (HEMI) PROJECTILE VELOCITY (MPS) -390.27
PROJECTILE DIAMETER (CM) - 1.143

PRO	JECTILE (	EFORMATION		I CAVITY MEASUR	EMENTS
	FTRATION TANCE (MM	PRESENTED ) AREA (MM**2)	CROSS-SECT	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM
	17	138		1 0	36
	4.3	326		I 6	4 t
	7.3	344	<del>=</del>	I 11	4.5
	97	381	384	1 17	48
	117	389	389	I 23	50
				1 50	52
				I 35	5 4
				1 41	55
	0.01.01			I 47	55
	300 E			1 53	55
			4	I 59	55
	i			I 65	54
<del></del>	non L			71	53
I	250			77	53
11				I 83	52
li.i				1 89	51
$(\Box)$	200			1 95	49
	8.00	(*************************************		1 100	46
$\mathbb{Z}$	į			1 106	44
13.2 1-4	!	/ \		1 112	42
<u> -</u> -	150 ⊢		_	J 118	39
ĊII.	100			I 124	35
a.				130	32
<b></b> -				1 136	29
Z Z	100			1 142	25
$Z_{\cdot}$	7176			1 148	22
لبا				1 154	19
۵.				T 160	15
	510		\ -	1 166	1.3
	21.			172	1.1
				178	t n
				184	9
	- ا ن		_	I 189	G)
		ra a	(1) 100	193	я
	-100	-50 0		0	O
		CAVITY PRO	FILE	t n	Ŋ

PROJECTILE TYPE -HORNADY, JFP PROJECTILE VELOCITY (MPS) -240.95

PENETRATION PRESENTED CROSS-SECT I PENETRATION CAVITY	PROJECTILE DEPORMATION I					
T   36   16   16   16   16   16   16   16		ISTANCE (NM) 5 26 55 81	AREA (MM**2) 59 56 66 60	AREA (MM** 59 56 66 61	2) I DISTANCE (N I 0 I 4 I 9 I 13 I 18 I 22 I 27	M) RADIUS(1 10 10 11 13 15 17
I 83   15   I 87   15   I 92   15   I 97   15   I 100   I 110   I 13   I 120   I 14   I 129   I 13   I 134   I 134   I 143   I 143   I 144   I 147   I 13   I 147   I 14	<del> </del>	250			I 36 I 41 I 46 I 50 I 55 I 60 I 64 I 69	16 16 16 15 15 15
1 124 14 14 17 13 13 14 14 13 13 14 147 13	TRATION	150			I 78 I 83 I 87 I 92 I 97 I 101 I 106	14 15 15 15 15 14
	لسا	50			I 120 I 124 I 129 I 134 I 138 I 143 I 147	14 14 13 13 13 13
				6 <b>Q</b>	I 194 I 198 I 203 I 208 I 212 I 217	15 15 16 16 16

I	221	16
I	226	16
1	230	15
I	235	15
1	243	14
1	245	14
I	249	13
I	254	13
ſ	259	12
I	<b>2</b> 63	11
I	268	11
ŧ	272	10
I	277	10
ſ	281	9
I	286	. 9
Ţ	290	8
1	295	8
I	300	7
I	305	7
I	309	7
I	314	7
I	318	6
I	9	ა
I	C	5

PROJECTILE TYPE -HORNADY, JFP PROJECTILE VELOCITY (MPS) -301.48

PR	OJECTILE DE	FORMAT I CN		I CAVITY MEASUR	EMENTS
	NETRATION STANCE (MM) 10 35 67 96 126	PRESENTED AREA (MM**2) 54 72 77 68 76	AREA (MM**2) 54 72 77 68 80	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 22 I 27 I 32	CAVITY RADIUS (MM) 14 17 19 21 24 26 28 29
PENETRATION DEPTH		T /T /T / T / T / T / T / T / T / T / T	50 100 I L E	1 36 1 41 1 46 1 50 1 55 1 60 1 64 1 69 1 73 1 78 1 83 1 87 1 92 1 97 1 101 1 106 1 111 1 115 1 120 1 124 1 129 1 134 1 138 1 143 1 147 1 152 1 157 1 161 1 166 1 171 1 175	30 31 31 31 31 31 30 29 28 27 26 25 24 23 22 22 22 20 20 20 21 19 19 19 18 17
			62	I 180 I 185 I 189 I 194 I 198 I 203 I 208 I 212 I 217	17 16 16 15 15 15 14 13

### RIUND NUMBER 150 CONTINUED

I	221	12
I	226	12
I	231	12
I	235	12
ſ	240	12
I	245	12
Ī	249	11
I	254	11
I	259	10
ĭ	263	10
I	268	9
ſ	272	9
ſ	277	9
I	282	9
Ī	286	9
I	291	8
I	296	8
I	300	7
I	305	7
I	310	7
ſ	314	6

PROJECTILE TYPE -HORNADY, JFP PROJECTILE VELOCITY (MPS) -319.83

 Р	ROJE	TILE DE	FORMATION		I CAVITY MEASUR	EMENTS
	ISTAN		PRESENTED AREA (MM**2) 176 191 23 30	CRCSS-SECT AREA (MM**2) 179	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32	CAVITY RADIUS (MM) 22 24 25 27 29 30 31 32
	300				I 37 I 42 I 46 I 51	33 34 34 35
	250				I 56 I 60 I 65 I 70 I 74	35 - 35 35 35 35
ION DE	200				I 79 I 64 I 89 I 93	35 35 34 34
TRAT	150	-		-	I 98 I 103 I 107 I 112 I 117	33 32 31 30 28
PENE	100 50			_	I 121 I 126 I 131 I 135	27 25 24 22
	9				I 140 I 145 I 149 I 154 I 159	21 19 18 17 16
	-	1.00 -5 CAV	o o o ITY PRØF:		I 163 I 168 I 173 I 178	15 14 13 12
					I 182 I 187 I 192 I 196 I 201	12 11 9 8 7
					I 206 I 210 I 215 I 220	5 5 5 4

Ī	224	4
I	229	4
I	234	4
I	239	4
I	243	4
I	248	4
ı	252	4
I	257	4
I	262	4
Ī	267	4
1	271	4
I	2 <b>7</b> 6	3
{	281	3
I	285	
I	290	3 3
I	295	3
I	300	3
I	304	3
I	309	2
I	313	2
ſ	Ŋ	

PROJECTILE TYPE +HORNADY, JFP PROJECTILE VELOCITY (MPS) -349.14

	PROJE	TILE DE	FORMATION	******	I CAVITY MEASUR	EMENTS
	DISTA	17 47 83 20	PRESENTED AREA (MM**2 90 106 105 64 67		I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35	CAVITY RADIUS (MM) 20 24 29 32 34 35 35
	300	,			I 41 I 47 I 53 I 59 I 65	34 34 32 31 30
<b>⊥</b>				_	I 71 I 77 I 82 I 88	30 30 31 29
ON DEP	1 } 200				I 94 I 100 I 106 I 112	29 29 27 26 26
RATI	150				I 118 I 124 I 130 I 136	25 25 24 23
F NF T	100				I 142 I 148 I 154 I 159	22 21 21 22
Ω.	50				I 166 I 171 I 177 I 183	21 22 22 19
	0 -:	100 -5		50 100	I 189 I 195 I 201 I 207	19 18 18 17
		CAV	ITY PROF		I 213 I 219 I 225 I 231	17 17 17 17
					I 237 I 243 I 246 I 254	16 17 17 16
					1 260 1 266 1 272 1 278	15 15 15 14

I	284	14
1	290	1.3
I	296	12
Ţ	302	11
I	308	11
I	314	10
Ţ	320	1.0
1	n	0
Ţ	n	9

PROJECTILE TYPE -HORNADY, JFP PROJECTILE VELOCITY (MPS) -391.77

PR	OJECTILE DE	FORMATION	<del></del>	CAVITY MEASUR	EMENTS
	NETRATION Stance (MM) 14 46	PRESENTED AREA (MM**2) 76 90	AREA (MM**2) 76	I I PENETRATION I DISTANCE (MM) I 0 I 4	CAVITY RADIUS (MM) 25 29
	84	95 -		9	- 31
	120	101		14	33
	154	102	102		37
			· · · · · · · · · · · · · · · · · · ·		39
			1		41 43
			]		44
			]		45
	300	111		46	45
					45
	1	/ \	1	55	46
工	250				46
<b>├</b>			1	65	47
نا					46
					46 45
	200 -				45 44
ΩN		)			44
					42
<del> </del>	150				41
$\Box$	1.00				40
$\sim$			1		39
<b>)</b>		/			38
N N	100 -		\		37
نا					37 36
Ţ			\		35
	50				34
	,5 ú [	· ·			33
			/   1		32
		. \ . (	1		31
	0				30
	-100 -	-50 0	50 - 100		30
		VITY PROF			29 28
	CH	ATIL LIVOL	1 4.4.		26
			· i		25
			i	181	25
			1		24
			· .	190	24
			1		24
			1		23
			]	204	21
			1		20
			68 1	213 218	20
				410	20

## ROUND NUMBER 152 CONTINUED

I	222	19
I	227	19
I	232	19
I	236	18
I	241	17
Ĭ	246	17
I	250	17
I	255	16
ŧ	259	15
Ī	264	14
I	269	13
I	273	12
I	278	11
1	282	10
Í	287	9
I.	292	9
I	297	8
Ī	301	8
Ī	306	7
Ī	310	7
ī	ō	ò

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -143.71

PRO	JECTI	LE DE	FORMA	TION			I CAVITY MEASUR	EMENTS
	NETRAT STANCE -1 15 30 46 64			ENTED (MM**2) 57 61 71 53 63	AREA	(MM**2) 57 51 51 53 54	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 28	CAVITY RADIUS (MM) 5 6 6 7 7 8
	300		Т		<u> </u>		I 32 I 37 I 42 I 47 I 51	8 8 9 9
H H	250					<del>-</del>	I 56 I 61 I 65 I 70	9 9 9 8
N DE	200	-		$\cap$			I 75 I 80 I 84	8 9 9
RATIO	150						I 89 I 94 I 98 I 103	9 9 8 8
ENETRATION DEPTH	100						I 108 I 113 I 117 I 122	7 6 6 5
Δ	50						I 127 I 131 I 136 I 141	5 5 5 5
	ថ -	100		8	<b></b> 50		I 146 I 150 I 155 I <b>15</b> 9	5 5 5 6
	۔			Y PRØF		100 I	I 164 I 169 I 174	6 6 5
						! !	1 178 1 183 1 188 1 188	5 5 1 1

ROUND NUMBER - 16C PROJECTILE MASS (GM) - 7.128

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -224.45

PROJE	CTILE DE	FORMATION		I CAVITY MEASUREMENTS
CISTA	RATION NCE (MM) 5 24 48 71 93	PRESENTED AREA (MM**2) 58 60 65 62 58	CR CSS-SECT AREA (MM** 58 60 65 63 60	
30	ie [			I 32 19 I 37 19 I 42 20 I 46 19
H 25	00 -	$\bigcap$		I 51 19 I 56 18 I 60 17 I 65 16
UN DE	10			I 70 16 I 75 15 I 79 15 I 84 15
	e  -		-	I 89 15 I 93 14 I 98 13 I 103 13
PENER 10	o		<del> </del>	I 107 12 I 112 11 I 117 10 I 122 9
5	0			I 126 9 I 131 8 I 136 8 I 140 7
·		-50 3 VITY PRM	50 100 FILE	I 145 7 I 150 7 I 154 7 I 159 7 I 164 7
			1 L. L.	I 168 7 I 173 6 I 178 6 I 182 6
				I 187 5 I 192 5 I 196 6 I 201 5 I 206 5 I 211 5 I 215 4
			71	I 211 5 I 215 4 I 220 5

## ROUNC NUMBER 160 CONTINUED

I	225	5
Ţ	229	5
I	234	5
I	239	2
ĭ	240	1
I	. 0	0

PROJECTILE TYPE -HORNABY, JHP PROJECTILE VELOCITY (MPS) -275.84

PROJECTILE DEFORMATION			I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 7 30 58 86 113	PRESENTED AREA (MM**2) 60 106 122 116 114	CROSS-SECT AREA (MM**2) 60 106 122 116 114	I PENETRATION I DISTANCE (MM) I 0 I 6 I 12 I 18 I 24 I 30 I 36	CAVITY RADIUS(MM) 14 15 17 20 23 24 24
300 H 250 L DE L			I 42 I 48 I 54 I 60 I 66 I 72 I 78 I 84 I 91 I 96 I 103 I 109 I 115	24 24 23 22 21 21 21 19 18 18
DEN 150 - 15			I 121 I 127 I 133 I 139 I 145 I 151 I 157 I 163 I 169 I 175 I 181 I 187 I 194 I 200	15 15 13 12 12 12 11 10 9 8 7
-100 CA	-50 0 VITY PRØF		I 206 I 212 I 218 I 224 I 230 I 236 I 242 I 248 I 254 I 260 I 266 I 272 I 279 I 284	6 6 5 5 5 5 5 5 4 4 4

## ROUND NUMBER 225 CONTINUED

Ī	291	4
I	297	3
I	299	3

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -293.08

	I CAVITY MEASUREMENTS	
PENETRATION PRESENTED CRCSS-SECT CISTANCE (MM) AREA (MM**2) AREA (MM**2) 8 56 56 32 91 91 61 102 102 87 105 105 112 93 94	I PENETRATION CAVITY I DISTANCE (MM) RADIUS(MM) I 0 16 I 4 17 I 9 18 I 13 21 I 18 23 I 23 25	
H 250 L 150	1       27       26         1       32       26         1       37       26         1       41       27         1       46       27         1       46       27         1       51       27         1       69       26         1       74       25         1       79       24         1       88       23         1       93       23         1       98       22         1       102       22         1       107       21         1       112       20         1       112       20         1       126       17         1       130       16         1       135       14         1       140       13         1       144       13         1       149       12         1       158       12         1       168       11         1       168       11         1       177       10         1       182       9	
75 I	I 210 6 I 215 6 I 219 5	

## RUUND NUMBER 161 CONTINUED

I	224	5
I	229	5
í	233	4
I	238	4
I	242	5
1	247	4
I	252	3
I	257	4
I	261	4
I	265	1
I	0	0
I	0	0

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) +299.12

PROJECTIL	DEFORMATION		I CAVITY MEASUR	EMENTS
PENETRATIO DISTANCE (11 35 63 90 115	TN PRESENTED (MM) AREA (MM++2) 83 107 110 112 100	CROSS-SECT	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35	CAVITY RADIUS(MM) 15 17 20 22 25 26 27
300	· · · · · · · · · · · · · · · · · · ·		I 41 I 47 I 52 I 58 I 64	27 27 27 27 27 25
H 250	-		1 70 1 76 I 82 I 88	24 24 24 24
ON DEPTH	-	l l	1 93 I 99 I 105 I 111	24 24 23 21
TRAT 120	-		I 117 I 123 I 129 I 135	19 18 17 15
P ENET			I 140 I 146 I 152 I 158 I 164	13 12 11 10
ຣຍ	- ( )	1	I 170 I 176 I 182 I 187	9 9 8 7
-11		50 100	I 193 I 199 I 205 I 211	5 5 5
			I 217 I 223 I 228 I 234	5 5 5 5
			I 240 I 246 I 252 I 258 I 260	5 4 5 4 4
		77	I 0 I D	0

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -329.16

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 10 36 66 94 119	PRESENTED AREA (MM**2) 85 131 137 129 130	CROSS=SECT AREA (MM##2) 85 131 137 129 130	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35 I 41	CAVITY RADIUS(MM) 18 21 25 26 31 32 34
	-50 0 IVITY PROF	50 100	I 47 I 53 I 58 I 64 I 70 I 76 I 82 I 88 I 94 I 100 I 105 I 117 I 123 I 129 I 135 I 147 I 153 I 159 I 164 I 170 I 176 I 182 I 188 I 194 200 206 211 217	34 33 33 33 33 33 33 33 33 33 33 33 33 3

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -336.42

PROJECTILE DE	FORMATION		I CAVITY MEASUREMENTS	
PENETRATION CISTANCE (MM) 13 37 68 95 120	PRESENTED AREA (MM**2) 96 155 159 144 144	AREA (MM**2) 96 156 159 144	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23	CAVITY RADIUS (MM) 19 22 24 27 30 32
300 <u> </u>	····		I 28 I 32 I 37 I 42 I 46 I 51 I 56 I 60	33 34 35 35 35 35 35
0. H 200 N 0 1 H 150 H H H			I 65 I 70 I 74 I 79 I 84 I 88 I 93 I 98 I 102	34 32 31 31 31 30 30 29 27
100 - EII 100 - 50 -			I 107 I 112 I 117 I 121 I 126 I 130 I 135 I 140 I 145	26 25 24 22 22 21 21 20
	L L L L L L L L L L L L L L L L L L L	100 ILE	I 149 I 154 I 159 I 163 I 168 I 173 I 177 I 182 I 187	16 16 15 14 13 12 10
		79	1 191 1 196 1 201 1 205 1 210 1 215 1 219	7 6 5 5 5 5 5 5

#### ROUNE NUMBER 162 CONTINUED

I	224	5
I	229	4
ſ	230	2

ROUND NUMBER - 158 PROJECTILE MASS (GM) - 7.128

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -405.32

P R	OJECTILE DE	FORMATION		I CAVITY PEASUR	EMENTS
	ENETRATION ISTANCE (MM) 13 40 75 101 128		CROSS-SECT AREA (MM**2) 97 252 263 210 203	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 22 I 27 I 32	24 28 32 35 38 41 43
PENETRATION BEPTH		-50 0 5 VITY PROFI	U 100	36 41 46 50 55 60 64 69 73 78 83 87 92 97 101 106 110 115 120 124 129 134 138 143 147 152 157 161 166 171 175 180 184 189	45 46 45 44 43 42 41 38 37 36 32 29 27 27 22 20 18 16 15 11 11 12
			81 81	198 203 208	11 9 8 7 6 5

# ROUND NUMBER - 158 CONTINUED

I	222	5
I	226	5
1	229	2

ROUND NUMBER - 212

PROJECTILE MASS (GM)- 7.128

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -416.39

PROJECTILE DE	FORMATION	·	CAVITY MEASURE	EMENTS
PENETRATION DISTANCE (MM) 14 44 78 106 132	AREA (MM**2) AREA 130 1 148 1 138 1 160 1	(4M**2) ] ] 31   ]	PENETRATION DISTANCE (MM) 0 5 11 17 23 29 35 41	CAVITY RADIUS(MM) 32 36 40 43 45 47 48
	-50 0 50 VITY PROFILE		47 53 59 65 71 77 83 89 95 101 107 113 119 125 131 137 143 149 155 161 167 173 179 185 191 197 203 209 215 227 233 239 242	49 48 48 48 46 41 40 33 33 33 33 32 22 22 22 21 11 11 11 11 11 11 11 11 11

PROJECTILE MASS (GM) - 7.128

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -466.77

PROJECTI	LE DEFORMATION		I CAVITY MEASUR	EMENTS
PENETRAT DISTANCE 18 51			I I PENETRATION I DISTANCE (MM) I O I 5	CAVITY RADIUS(MM) 39
85	185	185	I 12	49
114 138	219 234	219 235	I 17 I 23	53 55
•	<b>-</b>	200	1 29	57
			I 35	59
			I 41	60
300	FVG annual and annual a		I 47 I 53	60 60
300	T		I 58	59
			1 64	58
T 05.00			I 70	57
<u>∓</u> 250	_	-	76	55
Δ			1 82 I 68	53 51
			I 94	49
ນບບ	_ / \	1	I 100	48
<b>Z</b>			1 106	47
Z S		1	I 111 I 117	45 43
⊢ 150 CE	F /		1 123	41
<u>a</u> ∠ a∠		'	1 129	39
<del> </del>		\	I 135	37
<u> </u>		١ ١	1 141	35
고 183 대		\	I 147 I 153	33 30
Δ.			I 159	27
		1 1	165	25
50		1	171	23
			177	20
		)	I 182 I 188	18
a l			1 194	15 14
-1	00 -50 g		200	12
	CAVITY PROF	TIE	206	11
	2114 7 1 1 1 1/01		212	9
			l 218 l 224	8
				8 <i>7</i>
				6
				5

ROUND NUMBER - 146

PROJECTILE MASS (GM) - 8.100

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -233.03

			I CAVITY MEASUREMENTS	
PENETRATION C)STANCE (MM) 5 24 48 71 92	PRESENTED AREA (MM**2) 60 97 101 94 121	AREA (MM**2)   60   98   1   1   1   1   1   1   1   1   1	I PENETRATION I DISTANCE (MM) I	CAVITY RADIUS (MM) 11 11 13 16 18 19 21 22 24
PENETRATION DEPTH 300 -105 CE	-50 0 AVITY PROF	50 100 ILE	41 46 51 55 60 65 70 74 79 84 88 93 98 102 107 112 116 121 126 130 145 140 145 149 154 159 163 168 173 177 182 187	24 24 23 23 23 22 21 20 19 19 18 17 16 15 14 13 12 11 11 10 9 8 8 8 8 7 7
		85 1	196 201 205 210 215	6 5 5 5 5 5

# ROUND NUMBER 146 CONTINUED

1	224	4
I	229	4
Į.	234	4
ľ	238	4
i	243	3
Ī	246	0

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -246.60

PROJECTILE D	EFORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM 9 28 54 78 104	PRESENTED ) AREA (MM++2) 62 126 127 127 68	CROSS-SECT AREA (MM##2) 62 126 128 129 68	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 30 I 35	CAVITY RADIUS(MM) 10 11 17 22 24 25 26
300 L 250 C L 250 C C L 250 C C L 250 C C L 250 C C C C C C C C C C C C C C C C C C C	-50 OROF	50 100 ILE	276	27 26 23 21 18 16 16 16 16 16 16 16 16 17 77 77 76 66 66 66 66 66 66 66

#### ROUND NUMBER 228 CONTINUED

1	288	4
1	294	4
1	300	4
1	306	4
1	312	4
1	318	4
Ī	324	4
I	n	0
i	ň	ñ

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -289.46

PROJECTILE DEFORMATION			I CAVITY MEASUR	I CAVITY MEASUREMENTS	
CISTA	RATION NGE (MM) 9 33 63 91 20	PRESENTED AREA (MM**2) 63 131 118 125 143	CRCSS-SECT AREA (MM**2 63 131 119 126 145	I PENETRATION ) I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 28 I 32	16 17 19 20 23 24 25 26
300	)	T	T	I 37 I 42 I 46 I 51	26 25 25 24
工 250 上 a	?		_	1 56 1 61 1 65 1 70 1 75	24 24 23 23 22
ON CE				I 80 I 84 I 89 I 94	22 22 21 20 20
150 出 上				I 98 I 103 I 108 I 113	20 20 19 18
193 d.			+	I 117 I 122 I 127 I 131	17 17 16 15
51			-	I 136 I 141 I 146 I 150 I 155	15 14 13 13
C	-100 -	-50 0 VITY PROF	50 100 ILE	I 159 I 164 I 169 I 174	12 11 11 11
				I 178 I 183 I 188 I 193 I 197	10 10 10 10 10
			89	I 202 I 207 I 212 I 216 I 221	9 9 9 8 8

#### ROUND NUMBER 147 CONTINUED

Ī	225	7
ſ	230	7
Į	235	7 7 7
Ī	240	7
í	244	7
I	249	7
Ţ	254	7
ŧ	259	7
I	263	7
Ţ	268	7
Ī	273	6
I	277	6
I	282	6
í	287	6
Ī	291	5
Ţ	296	
I	301	4
1	306	4
I	310	4
ſ	315	4
I	320	4 4 4 4 4
I	324	4
I	9	3
ľ	0	•

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -319.16

PROJECTILE DEFORMATION		I CAVITY MEASUR	EMENTS
PENETRATION PRESENTED DISTANCE (MM) AREA (MM**2 11 97 36 150 68 68 98 60 129 65	CROSS-SECT ) AREA (MM++2) 97 151 68 60 65	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35 I 40	CAVITY RADIUS(MM) 17 20 24 27 29 30 30 30
300 H 250 200 150 100 -100 -50 CAVITY PROF	50 100 FILE	I 46 I 52 I 58 I 64 I 70 I 76 I 81 I 87 I 93 I 105 I 111 I 117 I 123 I 128 I 140 I 146 I 152 I 158 I 164 I 169 I 175 I 187 I 187 I 198 I 198 I 228 I 228 I 228 I 228 I 228 I 2269 I 257 I 269	3098876454332110988765543211111111998888888888888888888888888888

Ī	281	7
I	286	7
1	292	7
I	298	7
1	304	6
I	310	5
Ī	316	6
Ī	321	6
1	n	

# PROJECTILE TYPE -HURNADY, JHP PROJECTILE VELOCITY (MPS) -345.19

PROJECTILE DE	FORMATION	***	I CAVITY MEASUR	EMENTS
PENETRATION CISTANCE (MM) 11 38 70 97 124	PRESENTED AREA (MM**2) 85 136 142 156 145	AREA (MM**2) 85 137 143 158 146	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32	21 23 26 30 33 36 38 39
300 <u>H</u> 250			I 37 I 41 I 46 I 51 I 55 I 63 I 65 I 69	40 40 40 39 38 38 37
H 1000 L 150 L		-	1 74 I 79 I 83 I 88 I 93 I 97 I 102	36 35 34 33 32 32 30
DENE TENE TENE TENE TENE TENE TENE TENE			I 107 I 111 I 116 I 121 I 125 I 130 I 135 I 139	29 28 26 26 25 23 23
	-50 0 VITY PROF	100 ILE	I 144 I 149 I 153 I 158 I 163 I 167 I 172	20 19 19 18 17 16
<b>-J</b> *			1 177 I 181 I 186 I 191 I 195 I 200 I 205	14 14 12 11 10 10
		93	I 209 I 214 I 218	8 7 6

## ROUND NUMBER 148 CONTINUED

I	223	6
I	228	6
I	232	5
I	237	5
I	242	5
I	246	5
Ţ	251	5
Ĭ	255	4
ſ	259	2

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -357.75

PR	OJECTILE DE	FORMATION	)	I CAVITY MEASUR	EMENTS
	NETRATION STANCE (HM) 13 40 73 102 129	PRESENTED AREA (MM**2) 113 103 101 101 94	AREA (MM**2) 113 103 101	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23	CAVITY RADIUS(MM) 24 27 32 35 39
DEPTH	250 -			I 29 I 35 I 41 I 46 I 52 I 58 I 64 I 70 I 76 I 81 I 87 I 93	40 42 43 42 41 38 36 36 37 35 34
PENETRATION	150 -			1 105 1 111 1 117 1 122 1 128 1 134 1 140 1 146 1 152 1 158 1 163 1 169 1 175 1 81	31 27 26 25 24 23 22 20 20 19 1,8 17 15
		J L / 50 0 E VITY PROF	100 ILE	228 234 240 245 251 257 263	13 13 12 11 10 9 8 7 6 6 6 6 6 5

## ROUND NUMBER 216 CONTINUED

I	275	3
I	O	0
I	0	0

PROJECTILE TYPE +HORNADY, JHP PROJECTILE VELOCITY (MPS) -375,83

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 12 40 74 102 129	PRESENTED AREA (MM**2) 121 118 118 135 134	CROSS-SECT AREA (MM++2) 121 118 118 135 135	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 18 I 23 I 29 I 36 I 42 I 47	CAVITY RABIUS (MM) 29 33 37 40 42 44 45 47
300		T	I 53 I 59 I 65 I 71	48 48 48 47
T 250			1 78 I 84 I 89 I 95 I 101	45 44 42 40 38
1 200 - ND 150 -		-	I 107 I 113 I 119 I 125	36 34 33 31
N 100 -			I 131 I 137 I 143 I 149 I 155	30 29 28 28 25
50 -			I 151 I 167 I 173 I 179	25 23 22 21
-100	-50 0	50 100	I 185 I 191 I 197 I 203 I 209	19 18 17 16 15
		FILE	I 215 I 221 I 227 I 233	13 11 9
			I 239 1 245 I 251 I 257	7 7 6 5
			I 263 I 269 I 275 I 278	5 5 4 3

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -384.36

			I CAVITY MEASUR	 EMENTS
PENETRATION DISTANCE (MM) 14 41 76 104 132	PRESENTED AREA (MM**2) 104 126 137 125 119	CRCSS-SECT AREA (MM**2) 104 127 137 125 119	I PENETRATION I DISTANCE (MM) I G I 4 I 9 I 13 I 18 I 23 I 28	CAVITY RADIUS (MM) 23 26 29 32 36 39 40
300	<u> </u>	T	I 32 I 37 I 41 I 46 I 51	42 43 44 44 44
# 250 L	$\int_{\Gamma}$	_	I 56 I 60 I 65 I 70	43 43 42 42
S00 -			I 74 I 79 I 84 I 88	41 40 39
150 -			I 93 I 97 I 102	37 36 34 33
公 上 以 100 上		1 1	I 107 I 112 I 116 I 121	32 31 29 28
50 <u> </u>			I 126 I 130 I 135 I 140	26 25 24 23
٥ ــــــ			I 144 I 149 I 154	22 22 22 22 21
-100 CF	-50 0 AVITY PRØF	ILE I	163 168 1 172	20 19 18
		. I	182 186 191	16 15 15 15
		] ] ] ]	200 205	15 13 12 11
		98 I	214	11 9

# RJUNC NUMBER 145 CONTINUED

A CARLON CONTRACTOR

I	. 224	8
1	228	7
I	233	. 7
I	238	6
í	242	5
I	247	5
1	252	5
I	257	4
Ī	261	3

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -426.29

PROJECTILE	PROJECTILE DEFORMATION			EMENTS
PENETRATION DISTANCE (M 16 47	PRESENTED 4) AREA (MM**2) 162 162	CROSS#SECT AREA (MM##2) 163 165	I PENETRATION I DISTANCE (MM) I 0 I 5	CAVITY RADIUS(MM) 36 40
82	161	162	1 11	44
112	163	169	1 17	47
139	155	155	1 23	49
			1 29 1 35	51 53
		e e	1 41	53
			1 47	53
300 —			I 53	52
70°C [			I 58 I 64	52 51
	_		1 70	50
T	$\bigcap$		i 76	49
王 250 -		-	1 85	47
Ω			1 88	45
	/ \		I 94 I 100	44 43
500 F	/ )	_	I 105	41
N			1 111	39
·			1 117	38
150 H	/		I 123 I 129	36 34
<u> </u>			1 135	31
<del> -</del> -			1 141	30
¥ 100 -	<b>\</b>		1 147	28
	/		1 153	25
<u>a</u>			I 159 I 164	23 22
F :>			1 170	20
50 <del> </del>		<del>-</del>	1 176	20
			I 182	19
			1 188	17
S		/	I 194 I 200	16 15
-100	-5ช ฮ	50 100	1 206	14
(	CAVITY PROF		I 212	12
		<b>L</b> . L.	1 217	11
			I 553	10 9
			1 235	9 8
			I 241	
			1 247	9 9 9
			1 253	9
			I 259 I 265	8 6
			I 271	5
		100	1 0	Õ
		100		

ROUND NUMBER - 157 PROJECTILE MASS (GF)-10.238

PROJECTILE TYPE -HURNADY, JHP PROJECTILE VELOCITY (MPS) -258.74

PROJECTILE D	PROJECTILE DEFORMATION			EMENTS
PENETRATION CISTANCE (MM	PRESENTED ) AREA (MM**2)	CROSS-SECT AREA (MM**2)	I I PENETRATIÓN I DISTANCE (MM)	
7	58		1 0	10
27	115		I 4	13
56	127		I 9 I 13	15
82 112	60 59	= =	í 13 I 18	18 21
116	27		I 23	23
		· ·	I 28	25
•			1 32	26
			37	26
207			42	26
300	- T		I 46	25
			I 51	23
			I 56	22
≖ 250 ⊢	1 \	4	I 60	21
<del> </del>			I 65	20
Δ		,	1 70	19
ш С			74	18
505 <u></u>			79	18
z			I 84	17
N ED			I 89	16
<u> </u>		!	I 93 I 98	16
<u>+</u> 150 +		i		16
E. C.	/ /		I 103 I 107	15 15
<u> </u>	( )		112	15
N 100			117	15
Z 100	) (	,	121	14
H d			126	14
<u> </u>		1	131	13
50 <del> </del>	/	-	136	13
	( )	i	I 140	12
	\ /		I 145	12
		· · · · · · · · · · · · · · · · · · ·	150	11
0 r		•	154	11
-100	-50 C		159	11
		1 1 1 1	164	11
C	IIVIII INO		168	11
			173	11
			I 178 I 182	11 11
		; ]		10
			192	11
			196	îĉ
			201	10
			206	10
		1	211	10
		101	215	9
			220	10

#### RULNO NUMBER 157 CONTINUES

Ī	225	10
ſ	229	10
I	234	9
I	239	9
1	243	8
I	248	8
Ţ	253	8
Ţ	258	7
I	262	7
Ī	267	7
ı	272	7
ľ	276	7
I	281	7
Ţ	286	7
I	290	7
I	295	6
I	300	6
Ī	305	6
Ī	309	6
Ī	312	6
Ī	0	Ğ

ROUND NUMBER - 156

PROJECTILE MASS (GM)-10.238

PROJECTILE TYPE -HCRNADY, JHP PROJECTILE VELOCITY (MPS) -303.28

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
	AREA (MM**2)	CRCSS-SECT AREA (MM**2)	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM)
10	56		0 1	15
33	55	= =	I 6	18
67	53 '		I 11	22
97	58		I 17	25
130	58		T 23	27
			I 29	29
			I 35	30
			I 41	30
300		]	t 47	30
300	T		I 53	29
!		,	I 59	28
į	1 1		6.5	2 <b>7</b>
T 05 )	}		71	26
H 250 -		1	I 77	25
۵			E 83	25
إ			l 89	24
	1.		94	23
_ 503 -		]		23
N N		I		23
				22
- 1 F" )	)	I	:	21
150		1		20
H 150 - H 100	/			20
⊢			136	19
LJ 107		1	142	18
号 100 上		-   I	148	18
إ		1	154	18
<u> </u>		1	160	17
50		;		18
70		√ <b>1</b>	172	18
			178	17
	\ /	ļ I	184	16
ე   ს ა .	1 \   /	I		15
				14
-100	-50 O	58 188 I		14
CA	VITY PROF	II E I		14
		1 L, L.		14
		I	219	13
		I		12 12
		I		12
		I		11
		I		11
		I		11
		I		10
		I		10
		I		10
		103 I		10
		I	279	10

## RUND NUMBER 156 CONTINUED

I	285	9
I	290	9
I	296	9
[	302	9
I	308	8
1	314	8

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -347.55

PROJECTILE DE	FORMATION		I CAVITY MEASURE	EMENTS
PENETRATION DISTANCE (MM) 14 42 75 108 139	PRESENTED (AREA (MM**2) / 118 92 93 87 83	CROSS-SECT AREA (MM++2) 118 92 93 87 84	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35	22 28 31 35 37 40 42
300			I 41 I 47 I 53 I 59 I 65	43 44 44 44 43
± 250 0 11			I 71 I 77 I 83 I 88	42 41 39 38
200 - N		-	I 94 I 100 I 106 I 112 I 118	38 37 35 35 34
H 150		_	I 124 I 130 I 136 I 142	34 32 31 30
N 100 -			1 148 154 160 166 171	29 28 28 26 26 23
0			177 183 189 195	22 20 19 18
	-50 0 5 VITY PROFI	0 100 j	213 219	18 18 15 15
		1 1 1	230 237 243 248	14 13 13 12
		I I I I	260 266 272	12 12 11 10 9

#### ROUND NUMBER 231 CONTINUED

Ï	284	9
1	290	Я
1	296	8
I	302	9
1	308	7
1	314	- 6
I	319	5
I	322	5
Ī	0	ñ

PROJECTILE TYPE -HGRNADY, JHP PROJECTILE VELOCITY (MPS) -348.74

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION CISTANCE (MM) 11 37 72 102 134		RCSS-SECT REA (MM**2) 79 154 152 194 185	I PENETRATION I DISTANCE (MM) I 0 I 6 I 11 I 17 I 23 I 29 I 35 I 41	CAVITY RADIUS (MM) 20 24 29 32 35 37 39
	1 J J J SS YITY PROFIL	100	178 184 190 196 202 208 214 220 226 232 237 243 249 255	41 41 40 40 39 38 37 36 34 33 32 31 30 29 27 26 24 23 21 20 19 17 17 16 15 14 13 11 10 10 10 10 10 10 10 10 10 10 10 10
		107 I	273	7 6 5

# RUUND NUMBER 155 CONTINUED

I	285	5
I	291	5
1	297	5
1	303	4
I	309	4
1	314	3
1	320	3
1	0	0
I	C	o

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -391.77

PROJECTILE DE	FORMATION	****	I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 15 46 81 114 144	PRESENTED AREA (MM**2 140 127 133 141 148	CROSS-SECT ) AREA (MM**2) 140 127 133 141 153	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35	CAVITY RADIUS (MM) 27 33 39 42 46 48 50
300 H1 250 200 150 -100 CI	-50 O AVITY PRO	50 100 OF ILE	1 41 1 47 1 53 1 59 1 65 1 71 1 77 1 83 1 89 1 107 1 107 1 113 1 119 1 125 1 137 1 148 1 154 1 154 1 156 1 178 1 184 1 190 1 196 1 196 1 196 1 196 1 208 1 214 1 226 1 238 1 244 1 256 1 238 1 247 1 256 1 279	55255555555555555555555555555555555555
		109		

I	285	9
1	291	9
Ī	297	7
ĭ	303	6
Ţ	309	6
Ţ	315	6
I	320	6
I	n	n
Ī	0	0

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -395.33

PR(	JECTILE DE	FORMATION	I CAVITY MEASUR	EMENTS	
	STANCE (MM) 13 42 80 113 146	PRESENTED AREA (MM**2) 105 185 147 147 162	CRGSS-SECT AREA (MM**2) 105 186 150 155 163	I PENETRATION I DISTANCE (MM) I 6 I 11 I 18 I 24 I 29 I 35 I 41	26 32 37 41 45 47 49 50
PENETRATION DEPTH	200 - 150 -			107 113 119 125 131 137 143 149 155 161	51 52 51 50 47 45 43 43 43 43 37 36 37 36 37 37 38 37 38 37
	30 -100 CA	-50 0 AVITY PRO	50 100 FILE	179 185 191 197 203 208 214 220 226 232 238 244 250 256 262 268 274	27 25 23 23 23 21 20 18 16 16 16 16 17 14 13 12 11 9

# RJUND NUMBER 154 CONTINUED

286	7
292	6
298	6
304	5
310	5
316	5
322	5
327	1
٥	ō
	292 298 304 310 316 322

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -425.70

PROJECTILE DE	FORMATION	********	I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 14 46 84 118 151	PRESENTED AREA (MM**2 158 159 151 171 142	1) AREA (MM**2) 159 159 159	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35 I 40	CAVITY RADIUS (MM) 33 36 41 45 49 52 53 55
300 PENETRATION DEPTH 250			1 46 I 52 I 58 I 64 I 70 I 76 I 81 I 87 I 93 I 99 I 105 I 111 I 117 I 122 I 128 I 134 I 140 I 146 I 152 I 157 I 163 I 169 I 175	57 57 57 55 55 54 55 54 55 54 51 50 47 45 42 40 38 36 34 37
-100 C	-50 0 AVITY PR	50 100 OFILE	I 181 I 187 I 193 I 199 I 204 I 210 I 216 I 222 I 228 I 234 I 239 I 245 I 251 I 263 I 263 I 268 I 274	30 28 27 26 25 25 21 20 19 18 16 16 14

#### ROUND NUMBER 229 CONTINUED

1	280	1.3
1	286	13
ſ	292	12
1	298	10
1	304	9
Ĭ	309	9
Ī	315	8
Ì	321	7
Ï	n	0

PROJECTILE TYPE -HORNADY, JPP PROJECTILE VELOCITY (MPS) -382.43

PROJECTILE DIAMETER (CM) - 0.907

 P	ROJECTILE DE	FORMATION		I CAVITY MEASUR	LEMENTS
	ENETRATION ISTANCE (MM) 16 48 87 124 163	PRESENTED AREA (MM**2) 97 101 108 105 123	AREA (MM**2) 97	I PENETRATION I DISTANCE (MM) I 0 I 6 I 12 I 18 I 24 I 29 I 36	CAVITY RADIUS (MM) 24 30 34 36 38 38 38
PENETRATION DEPTH		50 0 5 ITY PROFI	0 100	1 41 47 54 59 66 71 77 83 90 95 101 107 113 119 125 131 137 143 149 155 161 167 173 179 185 191 197 203 209 215 227 233 245 251 257 263	377355333333333322222222221111153333333333
			115	275	13 12

### ROBBO NUMBER 233 CONTINUED

1	287	12
I	293	11
Ī	299	11
1	305	10
I	311	10
1	317	9
Ī	318	9
I	0	O
1	n	0

PROJECTILE TYPE -HORNADY, JSP PROJECTILE VELOCITY (MPS) -480.76

· · · · · · · · · · · · · · · · · · ·	I CAVITY MEASUREMENTS
PENETRATION PRESENTED CROSS-SECT DISTANCE (MM) AREA (MM**2) AREA (MM**2)  21	I PENETRATION CAVITY I DISTANCE (MM) RADIUS(MM) I 0 40 I 6 47 I 12 52 I 18 55 I 23 59 I 29 64 I 35 66 I 41 67
300	I     47     68       I     53     68       I     59     69       I     65     69
± 250	1     71     69       1     77     68       1     83     67       1     89     67       1     95     65
200 -	I 101 64 I 107 63 I 113 62 I 119 60
T IBU	I 125 59 I 131 57 I 137 55 I 143 53 I 149 50
	I 155 47 I 161 46 I 167 44 I 172 42
	I     179     40       I     185     40       I     191     39       I     197     37
CAVITY PROFILE	I 202 35 I 208 32 I 214 30 I 220 28 I 226 27
	I 232 24 I 238 23 I 244 22 I 250 20
	I 256 18 I 262 16 I 268 14 I 274 13 I 280 11

### ROUND NUMBER 232 CONTINUED

1	286	1 0
Ī	292	9
I	298	Я
1	304	7
1	310	7
1	316	7

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -220.87

PENETRAT Distance		PRESE AREA	NTED (MM++2)	CROSS AREA	-SECT (MM*+2)	I PENETRATION I DISTANCE (MM)	CAVITY PADIUS (MM
10		7	5		5	ı n	11
29		9			-	I 5	12
53		. B			35	I 11	1 4
76		9			6	I 17	17
105		8	8	8	. 8	1 23	19
						1 29	20
						I 35	20
						1 41	21
					,	I 46	20
300			~	<del></del>		I 52 I 58	19 19
	1	4	1 1	ŧ		л — Эс Г — 64	18
			} }			1 70	18
			} }			76	18
<u> </u>	$\vdash$		1			1 82	18
<u> </u>	ļ					1 88	17
<u></u> L <u></u> -J	1					94	16
$\overline{}$			1 1		1	100	15
200	H		) )		<b>→</b>	I 105	15
<u>S</u>	į		1 (				14
	1						1.4
					}		13
150 	<u> </u>		1 1		7	129	12
Ì	Ì				}	1 135	12
			1		1	[ 141	12
H 100			1			147	12
Z 100					1	1 152	12
<u>_</u>	İ		/		1	158	12
1			} }		1	1.64	12
50		1	1 (			170	12
			)			• • • • • • • • • • • • • • • • • • • •	12
		(	\ \ \		1	, , , , , , , , , , , , , , , , , , ,	12
			\ . /		1	188	13
Q						194	13
_ 1	00	-58	O	50	100		12
- 1					•		12
	LH	YTIVE	r KUr	FILE	1	. III	13
					]		13
					,	· ~ — ·	13
						229	13
					,	235 241	13
					]	246	14
					, I		13
					_		13
					1	. ∠⊙n	12
					-	064	4.4
					1		1 1 1 1

Ţ	282	11
i	288	10
Ì	294	10
I	299	9
Ī	305	9
I	311	9
Ţ	313	9
I	ņ	n
1	Ô	n

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -261.18

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
	PRESENTED AREA (MM++2)	AREA (MM*+2)	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM)
<u>1</u> 4	97	97	I n	1 4
35	125	125	1 5	17
61	122	122	I 11	21
86	120	121	I 17	24
112	111	113	1 23	25
			1 29	28
			1 35	30
			I 41	31
			I 46	32
300		- <del></del>	1 52	33
		1	I 58	33
	/ /		1 64	32
			70	31
± 250 ⊨	}		76	31
<b>├</b> 1			I 81	3 t
— 200 Ф	1		t 87	
ш				30
200			1 93	29
6.00			1 99	29
Z	. } [		1 105	27
	1		I 111	25
<u></u>	/ \		I 116	25
150	/		1 122	24
~			I 128	21
			I 134	20
PENETRATION 100 -	) . \		I 140	20
100	1		I 146	18
Li Li	/ )		ĭ 151	17
₾.	1		I 157	17
	{		I 164	15
50 <del> -</del>	\		I 169	15
	\ /		I 175	14
			1 181	13
			I 187	1.3
O L			1 193	12
-100	- <b>5</b> 0 0	50 100	I 198	13
			204	13
L	AVITY PROF	- I L. E	1 210	13
		•	216	13
		,	1 555	13
			1 228	12
			233	
			1 239	11 10
		· ·	245	10
			• = •	9
		ļ	257	8
				7
		. 1		7
		1	274	6

# OUND NUMBER 255 CONTINUED

1	280	5
I	286	5
1	292	5
ĭ	298	4
1	303	4
1	309	4
I	312	4
1	n	0
i	ń	ñ

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -279.38

	I CAVITY MEASUREMENTS
PENETRATION PRESENTED CROSS#SECT DISTANCE (MM) AREA (MM**2) AREA (MM**2) 15 97 97 37 157 157 64 140 140	I PENETRATION CAVITY I DISTANCE (MM) RADIUS(MM) I 0 17 I 6 21 I 12 25 I 18 29 I 23 32 I 30 35 I 35 36 I 41 37
150 PH 250	
123	233 7 239 8 244 7 251 7 256 6 263 6 269 5

1	285	7
1	292	4
t	296	2

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (HPS) -313.90

PROJECTILE DE	FORMATION	· · · · · · · · · · · · · · · · · · ·	I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 17 40 68 95 122		AREA (MM++2) 132 208 217 229 208	=	22 26 31 35 37 40 42 44
300 PENETRH 250 PENETRH 100 PENETRH 150 PE	-50 O AVITY PROF	50 100 ILE	53 55 67 77 88 90 100 101 112 113 133 148 155 167 177 189 191 201 218 223 248 250 265 272	45555544310975421986532198653209877676565

Ţ	279	
I	281	3
Ī	ń	t

ROUND NUMBER - 252

PROJECTILE MASS (GM)-13,608

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -354.83

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 17 43 75 105 134	PRESENTED AREA (MM**2) 133 245 228 243 245	CROSS-SECT AREA (MM**2) 134 245 228 244 245	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35 I 41	CAVITY RADIUS(4M) 26 32 39 46 50 54 56
	-50 OROF	50 100 ILE	1 47 1 53 1 59 1 64 1 70 1 76 1 82 1 88 1 94 1 100 1 123 1 123 1 129 1 135 1 141 1 147 1 153 1 159 1 165 1 71 1 177 1 82 1 88 1 94 2 100 2 06 2 12 2 18 2 24 2 30 2 36 2 41 2 47	58 58 58 58 56 53 56 53 56 53 56 53 56 53 57 57 58 58 58 58 58 58 58 58 58 58 58 58 58
		1 1 1 127 1	259 265 271	11 10 9 8 7

	283	6
ľ	289	6
ľ	295	5
ľ	300	5
I	306	4
	308	3

PROJECTILE TYPE -HORNDAY, JHP PROJECTILE VELOCITY (MPS) -230.73

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 8 28 51 75 99	PRESENTED AREA (MM*+2) 87 97 97 87 97	AREA (MM##2)	I PENETRATION I DISTANCE (MM) I 0 I 6 I 11 I 18 I 23 I 29 I 36	CAVITY RADIUS(MM) 14 16 19 21 23 24 24
	-50 O VITY PROF	50 100 ILE	1 41 1 48 1 54 1 56 1 78 1 66 1 78 1 10 1 10 1 10 1 10 1 10 1 10 1 10 1 1	22222222211100887663333219888776665555555555555555555555555555555
		129	I 282	5

## ROUND NUMBER 244 CONTINUED

1	288	7
I	294	7
1	300	5
Ī	304	5
1	0	0
t	n	0

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -266.20

PF	ROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
	ENETRATION ISTANCE (MM) 13 35 61 85 109	PRESENTED AREA (MM++2) 107 122 125 125 127	CROSS-SECT AREA (MM++2) 107	I PENETRATION I DISTANCE (MM) I 0 I 6 I 12 I 18 I 24 I 30 I 36	16 20 23 26 30 31 31
PENETRATION DEPTH		50 O I	50 100 ILE	1 42 1 48 1 54 1 60 1 66 1 72 1 78 1 84 1 90 1 102 1 108 1 114 1 120 1 126 1 132 1 138 1 144 1 150 1 156 1 150 1 168 1 174 1 180 1 186 1 192 1 198 1 19	32 31 32 31 31 31 28 27 26 20 20 18 17 16 11 10 10 10 10 10 10 10 10 10 10 10 10
			! ! !	270 276	5 4 5 5

## ROUND NUMBER 238 CONTINUED

I	288	4
Ţ	291	4
1	294	2

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -295.92

ROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
	AREA (MM**2) AREA	·	PENETRATION DISTANCE (MM)	CAVITY RADIUS (MM
13			1 0	19
37		62	f 6	22
64	_	57	I 12	26
59		71	I 18	30
113	165 1	65 .	I 24	32
		•	1 30	35
•			1 36	37
			1 42	39
			I 48	40
			I 54	39
300			I 60	38
			I 66	38
			72	38
		į į	T 78	37
<u> </u>	) · \		l 84	36
1	/ (		90	34
لت	11.		l' 96	31
<del>-</del> ->		!	102	30
200 -	/ \	7 :	* **	29
	/ \	1	114	28
	/ \	[ ;	120	25
	/ \	[ !	I 126	24
二 150 ⊨	( . )	7 ;	, <u></u>	23
<del>-</del>	\ \ \		138	20
150 - X - X - X - X - X - X - X - X - X -	/	1		21
ا جور لد		1	150	20
N 100	/		156	18
	/	1	162	16
J	{	1	168	15
5:4)	\	\ 1	174	13
50	(	7 1	180	12
	\	1	186	10.
		1	192	9
		1	198	7
0			204	7
-100	- <b>5</b> 0 <b>0</b> 50	100	· · · · · · · · · · · · · · · · · · ·	7
<u>۲</u>	AVITY PROFILE	· 1		7
CI		- I		7
		I	228	Ą
		1		7
		1	240	7
		1	246	5
		1	252	5 5
		İ		5
		ī	263	5

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -317.50

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 14 38 66 93 117	PRESENTED AREA (MM**2) 125 187 191 197 180	CROSS-SECT AREA (MM++2) 125	I PENETRATION I DISTANCE (MM) I 0 I 6 I 11 I 18 I 24 I 30 I 36	CAVITY RADIUS (MM) 21 25 29 32 35 37
	SO UVITY PROF	50 100 I L.E.	41 41 47 54 59 1 59 1 66 7 1 7 7 1 83 1 95 1 107 1 131 1 125 1 131 1 143 1 143 1 143 1 143 1 143 1 143 1 143 1 155 1 161 1 173 1 173 1 179 1 185 1 197 1 197 1 203 1 197 1 203 1 227 1 238 1 243 1 243 1 243 1 245 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	39 41 412 419 419 33 33 33 33 22 21 11 11 11 11 11 11 11 11 11 11 11

ROUND NUMBER - 235

PROJECTILE MASS (GM)-12.960

PROJECTILE TYPE -HORNADY, JHP

PROJECTILE VELOCITY (MPS) -337.54

PROJE	CTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
DISTA	RATION NCE (MM) 15 39 69 94	PRESENTED AREA (MM++2) 157 222 223 237 232	CROSS=SECT 157 157 222 223 237 232	I PENETRATION I DISTANCE (MM) I D I 5 I 11 I 17 I 23 I 29	24 28 32 36 39 42
30	0			1 34 1 40 1 46 1 52 1 58	45 46 46 46 46
王 258 企	e			I 64 I 69 I 75 I 81	46 45 44 43
301 201 201	0			I 87 I 93 I 98 I 104	40 39 37 37
☐ ☐ ☐ ⓒ	v		_	I 110 I 116 I 122 I 128	36 32 30 28
H 100	0			T 134 I 140 I 145 I 151	28 26 23 20
E. 51	5			I 157 I 163 I 169 I 175	17 16 14 12
(	-100	-50 0	50 100	I 180 I 186 I 192 I 198	11. 10 9 7
-	L CA	VITY PROF	FILE	I 204 I 209 I 215 I 220	7 5 5 5
				1 222 I 224 I 0	2 1 0

PROJECTILE TYPE -HORNDAY, JHP PROJECTILE VELOCITY (MPS) -374.45

PROJECTILE DEFORMATION	I CAVITY MEASUREMENTS
PENETRATION PRESENTED CROSS-DISTANCE (MM) AREA (MM**2) AREA (186 186 186 186 186 186 186 186 186 186	MM**2) I DISTANCE (MM) RADIUS(MM) I 0 36 I 5 43 I 12 47 I 18 49 I 24 53 I 30 56 I 36 58
300 H 250 L 150 ND L 150 ND L 150 ND L 150 ND CAVITY PROFILE	1 42 60 1 48 61 1 54 61 1 60 60 1 66 60 1 72 61 1 78 60 1 84 58 1 90 56 1 96 54 1 102 50 1 108 49 1 114 48 1 120 47 1 127 45 1 133 43 1 139 41 1 145 38 1 151 37 1 157 35 1 163 33 1 175 31 1 181 28 1 187 25 1 193 21 1 199 17 1 205 16 1 217 13 1 223 12 1 199 17 1 205 16 1 211 15 1 223 12 1 229 11 1 236 10 1 241 10 1 248 9 1 254 8 1 259 8 1 266 7 1 268 5 1 269 3 1 0 0
	136

PROJECTILE TYPE --HORMADY, JHP, 44MAG PROJECTILE VELOCITY (MPS) --383.74

PROJECTILE DEFORMATION	I CAVITY MEASUREMENTS
DISTANCE (HM) AREA (MM++2) AREA (MM++2)	I I PENETRATION CAVITY I DISTANCE (MM) RADAUS(MM) I O 39
	1 0 35 I 6 44
	1 12 50
	I 18 53
·	I 24 58
	1 30 61
167 354 354	I 36 63
	1 42 64
	1 48 66
300 [	I 54 66
	1 60 67
	1 66 66
T 250	1 72 66
王 250  -	I 78 65 I 84 63
<u>a</u>	1 91 62
<u>ш</u> /	1 . 97 60
200 - /	I 103 58
1 1	1 109 57
	1 115 57
H /	I 121 56
± 150	I 127 56
	1 133 55
<u>-</u>	I 139 53
41 .00	1 145 51
2 100 - )	I 151 50 I 157 47
₩ 100 -	1 163 46
	I 169 43
· · · · · · · · · · · · · · · · · · ·	1 175 41
1 1	I 181 38
	1 187 38
	I 193 35
0	I 199 33
	F 206 32
COVITY PRMETIE	I 212 31
· ·	1 217 30
·	223 29
	229 27
•	1 236 25 1 242 24
	I 242 24 I 248 22
	254 20
	260 18
i	1 266 17
3.77	1 272 16
137	I 278 15
1	E 284 14

#### ROUND NUMBER 369 CONTINUED

1	290	13
1	295	13
1	302	13
1	308	11
1	314	11
1	320	9

PROJECTILE TYPE -HORNDAY, JHP PROJECTILE VELOCITY (MPS) +235.55

PROJECTILE DIAMETER (CH) = 1.092

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 14 33 57 80 103	PRESENTED AREA (MM##2) 103 129 117 135 113	AREA (MM*+2) 103 129 117 135 114	PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 18 I 24 I 30 I 36 I 42	16 17 19 24 26 26 27 28
	-50 C VITY PROF	50 100	1 48 1 54 1 66 1 72 1 84 1 96 1 108 1 108 1 126 1 138 1 144 1 156 1 168 1	29 29 29 28 27 26 34 43 20 67 15 11 11 11 11 11 11 11 11 11 11 11 11
		1 1 1 1 1 1 1	240 247 252 259 265 271 277	10 10 10 10 9 8 7 7

139

ľ	289	7
1	295	7
[	301	7
ľ	307	8
t	313	8
ì	310	

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -262.08

ROJECTIL	E DEF	ORMATION		I CAVITY MEASUR	EMENTS
ENETRATI	ON	PRESENTED	CROSS-SECT	I I PENETRATION	CAVITY
	(MM)			I DISTANCE (MM)	
11		100	100	1 0	1 4
32		144	144	1 6	17
59		138	139	I 12	20
84 100		153	156	1 17	23
109		124	126	1 23	26
				1 29	28
				I 35	30
				1 41	31
				I 47	32
300		T V 1		I 53	32
	j			I 59 1 65	32 31
				I 71	32
T 050	L			1 77	31
≖ 250 ⊢				1 83	30
Ω_	ļ			1 89	29
ا الله الله الله الله الله الله الله ال	ļ	/ \		I 95	29
	L		·	I 101	28
200	Γ			I 107	
Z O		]			27
		/ \	+	I 113	26
⊢ ⊢ 150				I 119	26
├ 150 Œ		<i>\</i>		I 125	24
ĬŽ				I 131	23
	!			1 137	22
وو. ليا				1 143	21
일 188				1 149	20
ليا		1		I 154	19
Ω.				I 160	19
50	L			1 167	17
50			1	I 172	16
		\ /		1 178	1.4
		\ /		I 184	14
0	L			1 190	13
			***	I 196	13
- 1	100	-50 0		I 202	14
	CF	AVITY PRO	FILE	7 208	13
				214	12
				1 550	11
				1 226	10
			•	535	10
				I 238	10
				244	9 9
				1 250	
				256	9
				262	8
				268	<u>A</u>
				274	7
			141	[ 280	7

#### ROUND NUMBER 242 CONTINUED

I	286	7
J	292	7
I	297	6
I	303	5
1	309	5
Ţ	316	5
1	321	5
I	0	Õ
I	Ö	ñ

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -302.68

PROJECTILE DE	FORMATION		CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 13 37 65 93 118		ROSS=SECT	0 6 12 18 24	CAVITY RADIUS(4M) 21 26 29 32 36
300 300 250 250 250 150 -100		196 II II II II II II II II II II II II II	24 29 36 48 55 55 57 77 89 107 1125 1137 149 155 167 173 185 173 185 197 209 215 227 239 245 257 263	
		1	268 275 276	5 5 5

## ROUND NUMBER 241 CONTINUED

I	278	3
1	279	2
1	0	0

ROUND NUMBER - 239 PROJECTILE MASS (GM)-15,552

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -341.32

PROJECTILE DEFORM	I CAVITY ME	ASUREMENTS	
DISTANCE (MM) AREA 16 41 72 98	BENTED CROSS=5  A (MM**2) AREA (M 160 160 300 300 281 281 268 268 242 257		ON CAVITY (MM) RADIUS(MM) 26 31 36 40 43 45
300 H 250 DENETER DENETER DE	0 50 100	I 29 I 35 I 41 I 47 I 53 I 59 I 65 I 71 I 77 I 83 I 88 I 94 I 100 I 106 I 112 I 118 I 124 I 130 I 136 I 142 I 148 I 154 I 160 I 166 I 171 I 177 I 183 I 189 I 195 I 201 I 207	45 48 51 51 55 55 55 55 57 57 57 57 57 57 57 57 57
<b>لــ</b>		I 213 I 219 I 225 I 230 I 236 I 242 I 248 I 252 I 253	13 11 10 9 8 8 7 6 3

PROJECTILE TYPE -HORNADY, JHP PROJECTILE VELOCITY (MPS) -315,53

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 11 35 65 92 119	PRESENTED AREA (MM**2) 121 211 224 201 221		PENETRATION I DISTANCE (MM) I 0 I 6 I 12 I 18 I 24 I 30 I 35	23 28 32 35 37 40 42
	-50 C VITY PROF	50 100 ILE	I 42 I 47 I 54 I 60 I 65 I 71 I 78 I 83 I 89 I 95 I 101 I 107 I 113 I 125 I 131 I 137 I 143 I 149 I 155 I 161 I 167 I 173 I 179 I 185 I 191 I 197 I 203 I 209 I 215 I 220 I 227 I 233 I 239 I 245 I 250 I 257 I 262 I 269 I 271 I 273	44 45 45 45 45 45 44 41 41 41 41 41 41 41 41 41 41 41 41

PROJECTILE TYPE --HORNADY, JHP, 44MAG PROJECTILE VELOCITY (MPS) --- 379.48

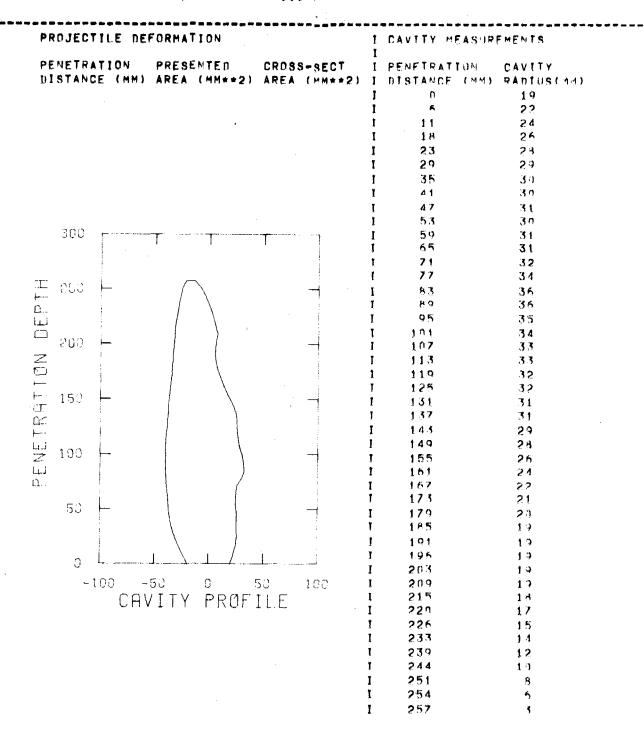
PROJECTILE DEFORMATION	I CAVITY MEASUREMENTS
PENETRATION PRESENTED CROSS—SECT DISTANCE (NH) AREA (NM**2) AREA (NM**	1     0     37       1     6     41       1     12     45       1     18     50       1     24     53       1     30     57       1     36     59       1     42     61       1     48     62
300 H 250 C 200	1 54 63 I 60 63 I 66 62 I 72 6I I 78 60 I 85 59 I 91 56 I 97 54 I 103 52 I 109 50 I 115 49 I 121 46 I 127 45
N 150 - WH 1 100 - WH	1 133 43 1 139 42 1 145 39 1 151 37 1 157 38 1 163 35 1 169 34 1 175 35 1 182 34 1 187 31 1 194 30
O CAVITY PROFILE	I 200 26 I 206 25 I 212 25 I 218 25 I 224 22 I 230 21 I 236 20 I 242 18 I 248 17
147	I 254 15 I 260 14 I 266 14 I 272 13 I 278 12 I 285 I2

## ROUND NUMBER 368 CONTINUED

1	2 90	11
1	297	10
ı	303	10
Ī	309	10
ı	314	9
1	321	8
Ï	326	6
1		

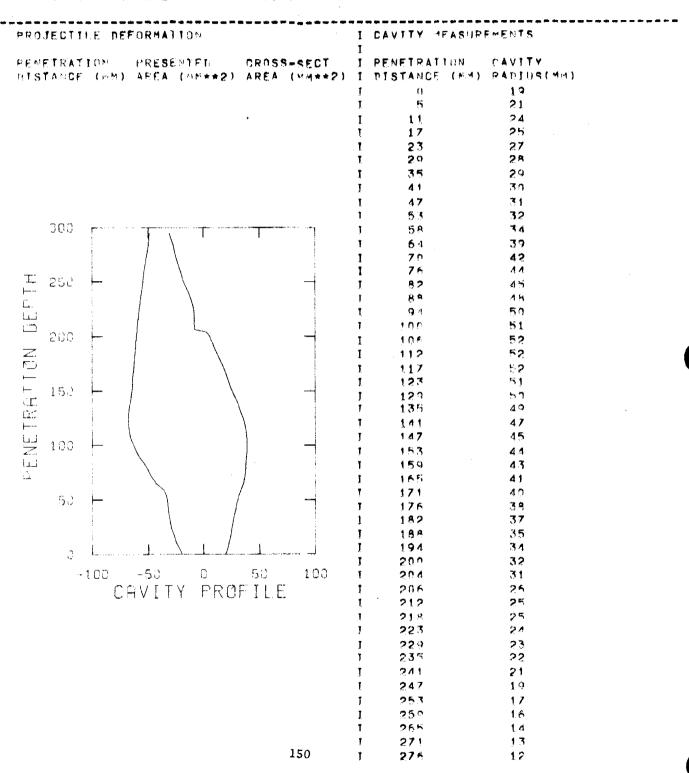
PROJECTILE TYPE -- KTW, MP, 9MM

PROJECTILE VELOCITY (MPS) -- 465.30



PROJECTILE TYPE -- KTH, MP, .385PEC

PROJECTILE VELOCITY (MPS) --450.80



	ROUND	NUMBER	284	CONTINUE
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I	282	1.1
Ţ	PRH	1.0
Ţ	pox	n
Ţ	30 n	я
Ţ	304	\$i
1	312	7
1	313	6
_		

PROJECTILE TYPE --KTW, MP, .357 MAG PROJECTILE VELOCITY (4PS) --634.90

PROJECTILE DEFORMATION		I CAVITY MEASURE	ENENTS
	FDC	I PENETRATION I DISTANCE (MM) I C S 11 I 17 I 23 I 20 I 35 I 41 I 47 I 53 I 59 I 65 I 71 I 77 I 82 I 88 I 94 I 100 I 106 I 112 I 18 I 130 I 136 I 142 I 183 I 189 I 160 I 166 I 72 I 178 I 183 I 189 I 195 I 195 I 195 I 197 I 207 I 213 I 237 I 243	CAVITY RADIUS (MM) 28 31 34 35 37 32 37 38 37 39 45 47 51 53 56 57 58 58 58 59 47 45 43 43 43 43 43 43 43 43 43 43 43 43 43
	i 1	7 243 1 240 1 255 1 261 1 266 1 273	

## ROUND NUMBER ORS CONTINUED

1	28A	16
Ţ	291	1 4
1	206	1.6
1	362	16
I	30 B	15
Ţ	314	1 %
1	321	1.6
1		

ROUND NUMBER -- 274

PROJECTILE MASS (GM) -- 4.147

PROJECTILE TYPE -- MBA, SS, .38 SPEC

PROJECTILE VELOCITY (MPS) --245.97

								•
PROJEC1	TILE DE	FORMATI	DN		,	I CAVITY MEASUR!	EMENTS	
PENETRA DISTANO	ATION CE (MM)	PRESEN AREA (			3mRECT (4M##2)	PENETRATION DISTANCE (MM) O T T T T T T T T T T T T T T T T T T	22 22 20 19	
00	0		<b>—</b>	T		1 23 1 29 1 34 1 36	18 16 13, 11	
- CE PTH - 20	ა 📙				į	1 37 1 38 1	8 5	
( ( )	e  -							
NO H 15	U				$\rightarrow$			
- H - H - H - H					-			
Ċ	30 <b>–</b>				_			
	-100		3 3	 50	100			
	C	AVIT	Y PRE	FIL	t.			

ROUND NUMBER -- 272

PROJECTILE MASS (GM) -- 4.147

PROJECTILE TYPE --MBA, 98, .38 SPEC PROJECTILE VELOCITY (MPS) +-306,93

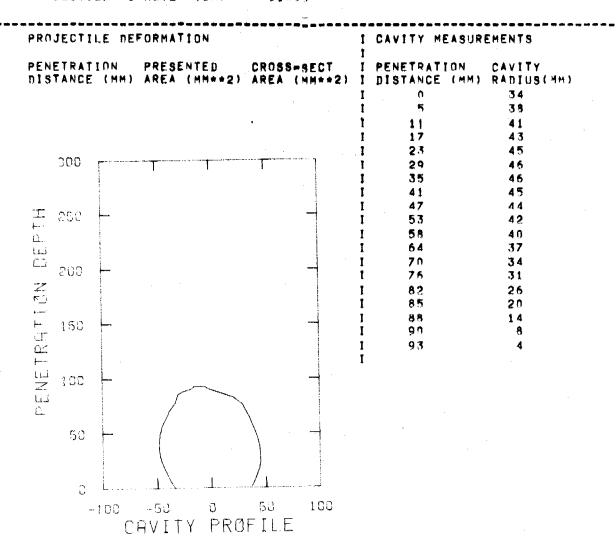
KOJECII	LE DE	FORMAT	ION			I CAVITY MEASUR	EMENTS
ENETRAT Istance		PRESE AREA	NTED (MM++2)			I I PENETRATION I DISTANCE (MH) I O I 5	
				•		I 11	35
						I 17	35
300		T		···		1 23	35
		•	•	•		1 29	34
					į	1 35	33
T 050						1 41	32
<u> </u>					. 🕇	1 47	31
1					ļ	I 53 I 59	30
□ 250 □ 250 □ 250						1 65	29 27
500	<u> </u>					, J. 71	25
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d						1 88	8
5 - 150 -						1 91 1	5
100							
		_					
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-	100	-50	0	50	100		
			PROF		3		

ROUND NUMBER -- 273

PROJECTILE MASS (GM) -- 4.147

PROJECTILE TYPE -- MBA, SS, .38 SPEC

PROJECTILE VELOCITY (MPS) -- 320.55



PROJECTILE	DEFORMATION	I CAVITY MEASUREMENTS		
PENTTRATION DISTANCE (M -8 21 60 93 136 188 208		ROSS-SECT I REA (MM**2) I 61 I 154 I 130 I 173 I 163 I 156 I 155 I	PENETRATION DISTANCE (MM) 0 9 18 28 37	CAVITY RADIUS (MM) 18 17 18 20 20 21 21 21 21
300			35 94 104 113 123	22 25 29 32 35
TRATION DEPTH		I I I I I I I I I I I I I I I I I I I	132 141 151 161 170 179 189 199	36 37 38 36 32 30 32 29
N 100 -		1 1 1 1 1 1 1	217 227 236 246 256 265 274	27 27 24 23 22 22 21
0 -100	-50 0 50 CAVITY PROFI		284 293 303 312 322	19 18 16 17 13

PROJECTILE	DIAMETER	(CM)		8.992
			100	

PROJECTILE D	EFORMATION		I CAVITY MEASUREMENTS
PENETRATION DISTANCE (MM -6 24 62 97 133 179 200	PRESENTED  AREA (MM**2)  88  110  142  176  85  110  92	CROSS-SECT AREA (MM**2) 131 178 151 176 85 111 101	I PENETRATION CAVITY I DISTANCE (MM) RADIUS(MM) I 0 19 I 9 19 I 18 19 I 27 20 I 37 23 I 46 25 I 56 28 I 65 29
300			I 74 31 I 83 33 I 93 34 I 102 36
王 250 a.			I 111 36 I 121 36 I 130 36 I 139 36
0 N D E E E E E E E E E E E E E E E E E E			1     149     35       I     158     35       I     168     34       I     177     33
1 150 -			I 186 31 I 195 30 I 205 29 I 214 27
000 -			I 223 25 I 233 23 I 242 21 I 251 19
50 -			I 261 17 I 270 14 I 280 13 I 289 12
-100 CF	-50 0 RVITY PROF	50 100 ILE	I 298 12 I 308 13 I

PROJECTILE TYPE --REM, FJ, 9MM PROJECTILE VELOCITY (MPS) --407.21

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) -3 30 75 111 153 205 228	PRESENTED AREA (MM**2) 76 85 137 159 110 119 138	CROSS-SECT AREA (MM**2) 1 169 139 160 159 137 124 162	18 1 28 1 37 1 47 1 56	RADIUS (M/r.) 23 25 26 29 28 28 31
300 DEPTH 250 300 DEPTH 300 150 300 50 50 50 50 50 50 50 50 50 50 50 50 5			75 84 94 103 112 122 131 141 150 160 169 179 188 199 207 216 226 235 245 245 254 264 273 283 292 301	27 34 36 41 44 46 46 47 44 41 39 39 58 35 37 28 26 23 19 16
	-50 o VITY PROF	50 100 ILE		

PROJECTILE TYPE -- REM, FJ, 9MM

PROJECTILE DEFORMATION  PENETRATION PRESENTED CROSS-SECT I PENETRATION CAVITY DISTANCE (MM) AREA (MM**2) AREA (MM**2) I DISTANCE (MM) RADIUS (MM)  -1 64 65 I 0 24  31 63 118 I 9 23  78 73 106 I 18 26  116 84 84 84 I 28 29  160 99 118 I 37 31  213 202 204 I 47 32  235 194 195 I 56 33  I 66 32  I 75 36  I 75 36  I 85 26  I 94 40  I 103 43  I 113 46  I 122 46  I 122 46  I 122 46  I 132 50  I 141 50  I 141 50  I 151 51  I 160 52  I 170 5C  I 170				
PENETRATION PRESENTED CROSS-SECT I PENETRATION CAVITY BISTANCE (MM) AREA (MM**2) AREA (MM**2) I DISTANCE (MM) RADIUS (MM) 0 24 0 31 63 118 I 9 23 78 73 106 I 18 26 116 84 84 I 28 29 160 99 118 I 377 31 223 235 194 195 I 56 33 1 66 32 I 75 36 36 I 85 28 29 1 100 1 103 43 1 113 46 1 122 48 1 132 50 1 113 46 1	PROJECTILE DE	FORMATION		
85   28   40   103   43   113   46   113   46   113   46   113   46   114   50   114   50   114   50   114   50   115   115   51   1160   52   1170   50   1179   48   1189   43   43   1189   43   43   1189   43   1189   43   1189   43   1189   43   1189   43   1189   43   1189   43   1189   43   1189   43   1189	DISTANCE (MM) -3 31 78 116 160 213	AREA (MM**2) AREA (MM**2) 64 65 63 118 73 106 84 84 99 118 202 204	I PENETRATION CAVITY I DISTANCE (MM) RADIUS (MM) I 0 24 I 9 23 I 18 26 I 28 29 I 37 31 I 47 32 I 56 33 I 66 32	
1 113	300		I 985 28 I 94 1 1 1 40	
1 151 51 51 160 52	<u>T</u> 250		I 113 46 I 122 48 I 132 50	
1 198 39 I 208 38 I 217 36 I 226 34 I 225 30 I 255 27 I 264 24 I 274 23 I 283 22 I 293 19 I 302 17 I 312 15 I 302 17 I 312 15 I 302 17 I 312 15	500 F		I 151 51 I 160 52 I 170 50	
50 - 100 - 50 0 50 100 - 100 - 24 23 22 24 23 22 22 23 24 23 22 24 23 24 24 23 24 24 24 23 24 24 24 23 24 24 24 23 24 24 24 23 24 24 24 23 24 24 24 23 24 24 24 24 24 24 24 24 24 24 24 24 24	150 - CC		1 198 39 I 208 38 I 217 36	
50 - 100 - 50 0 50 100 - 100 - 24 23 22 24 23 22 22 23 24 23 22 24 23 24 24 23 24 24 24 23 24 24 24 23 24 24 24 23 24 24 24 23 24 24 24 23 24 24 24 23 24 24 24 24 24 24 24 24 24 24 24 24 24	183 <b>-</b>		1 236 32 I 245 30 I 255 27	
0 1 1 1 1 1 312 15 -180 -50 0 50 100			I 274 23 I 283 22 I 293 19	
CAVITY PROFILE	-100			

PROJECTILE DIAMETER (CM) -- 8.992

PROJECTILE TYPE --- REM, JHP, 9MM PROJECTILE VELOCITY (MPS) --- 260-91

PROJECTILE DE	FORMATION	·· <del>···································</del>	I CAVITY HEAS	PENENT S
PENETRATION DISTANCE (MM) -3 20 43 78 95 151 189	PRESENTED AREA (MM+42) 92 98 139 152 214 140 98	CROSS-SECT AREA (MM**2) 165 141 162 157 231 161 103	1 PENETRATION I DISTANCE (MI 1 O I 9 I 18 I 28 I 37 I 47 I 56 I 66 I 75	CAVITY 13 RADIUS(MM) 16 14 15 17 20 23 21 22
300			1 84 1 94 1 104	22 23 23
<u>∓</u> 250 -			1 113 1 122 1 132 1 14)	22 22 23 23
ON DEP		-	1 151 1 160 1 170 1 179 1 189	21 19 16 16 15
F 150		-	I 198 1 208 1 217 I 226	14 12 F1 10
100 - 100 -		<b>-</b>	1 236 1 245 1 255 1 264	8 8 7 7
5 <i>0</i>		-	1 274	7
-193 C	-50 0 AVITY PRO	50 100 FILE		

PROJECTILE TYPE -- REN .JHP . 9RR

PROJECTILE VELUCITY (MPS) --- 308.46

PROJECTILE DE	FORMATION	CAVITY WEASUREMENTS		
PENETRATION DISTANCE (MM) 2 28 54 96 117 135	PRESENTED AREA #MR##2] 86 88 169 155 161 152 153	CRUSS-SECT AREA (MM+#2) 174 149 179 157 168 169 172	PEMETRATION DISTANCE (MM)  1 9 1 18 26 1 37 1 44	24 22 23 24 25 27 28
PENETRATION DEPTH 500 CAN 500	- 0(		281 290	30 29 30 31 32 38 33 32 28 25 24 22 20 21 19 18 15 12 11 11

PROJECTILE TYPE -- REN, JHP, 9KM PROJECTILE VELOCITY (MPS) -- 359.66

PR	DJECTILE DE	FORMAT LOR	I CAVITY HEASUR	EMENT S	
	NETRATION STANCE (MM) 6 33 50 98 113 152 161	PRESENTED AREA MM##2) 69 150 131 131 116 150 126	AREA (MM+2) 345 351 132 343 338	I PEMETRATION I DISTANCE (MM) I 0 I 9 I 18 I 28 I 37 I 47 I 57 I 66	CAVITY RADIUS (MM) 27 27 32 38 43 46 48
	300	· · · · · · · · · · · · · · · · · · ·	.[	I 76 I 85 I 95 I 104	50 48 43 41
FPTH	250		-	1 114 I 123 I 133 I 142 I 152	<b>42</b> <b>44</b> <b>40</b> <b>35</b> <b>3</b> 0
ON DE	200			I 16B I 171 I 180 I 190	25 24 21 17
TRATI	150		\ \ \	I 200 I 209 I 218 I 228	16 14 12 11
PENE	100			1 238 1 247 1 257 1 266 1 276	9: 8 7 6: 5
	50			1 4/5	5
		-50 0 VITY PROF	50 100 ILE	,	

PROJECTILE TYPE -- REM. JHP. 9NH PROJECTILE VELOCITY (MPS) -- 384.66

PROJEC	TILE DE	FORMATI	ON		_	ī	CAVITY REAS	URENERTS	
	ATIUN CE (KM) O	PRESENT AREA (I	TED MM+#2)	CROSS AREA	SECT	1 1 (5 1	PERETRATION DISTANCE EN		
ı	0	0			Ö	j	9	28	
	0	0	•		0	I	19	35	
	0	0			0	1	28	41	
	0 <b>0</b>	0			0	Ī	37	47	
	0	0			0	ı	47	<b>5</b> 0	
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						,	85	51 51	
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		'	'	'		Ī	104	47	
						3	114	45	
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<del></del>			ţ		7	1	133	41	
$\Omega_{-}$		1				Î	142	36	
<u>П</u>		. [	\			1	152	30	
200	<del> -</del> -	1			<b>→</b>	I.	161 171	28 25	
0 N	Į.		\			1	180	22	4
		1	\			ī	190	19	
⊢ t50		/	\			1	199	16	·
⊢ 150 CC					7	J	209	13	
Ľ		1	)			I	218	10	
<b>⊢</b> .	Ì		/	\		1	228	7	
N 100	-	}		\	_	Ī	238	6	
2 100 [a]				}		Ī	247	6	
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	CHY	VITY	PRØF	l L.t.					

PROJECTILE DE	FORMATION	<u> </u>	1 CAVITY HEASUR	EMENTS
PENETRATION DISTANCE (MM) 7 36 61 98 127 149 157	PRESENTED AREA (MM++2) 153 169 150 198 165 194 170	CROSS-SECT AREA: (MM++2) 35)	I PENETRATION I DISTANCE AMM ) I 0 I 9 J 19 I 28 I 38 I 47 I 57 I 66 I 76	CAVITY RADIUS (MM) 26 29 35 42 46 49 51 52
300	1		I 85 I 95 I 104 I 114	51 48 45 44
H 250 -			1 123 I 133 I 142 I 352	42 41 37 32
200 P			1 16 N 1 171 1 180 1 190	28 24 20 16
1891 10N 1200 1200 1200 1200 1200 1200 1200			I 200 I 209 I 218 I 228	12 8 8 7 5
(円) (円) (円)			1 238 1	,
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0 L -100 Cf	-50 0 PVITY PRO	50 100 FILE		

PROJECTILE TYPE -- REM, JHP, 9MM

PROJECTILE WELDCITY (MPS) -431.60

ROJECTILE DE	FORMATION		I CAVITY MEASURE	EMENTS
ENETRATION DISTANCE (HM) -3 29	- 6 <b>8</b> 138	CRDSS-SECT AREA (MM++2) 68 340	PENETRATION DISTANCE CHM) O DISTANCE CHM)	CAVITY RADIUS(HM) 28 33
63 96	163 150	164 151	1 · 19 1 · 28	39 46
126	133	137	1 37	50
162	127	328	1 47	52
179	218	242	56	54
			I 65	55
			i 75	54
			I 84	54
300	1 7	<u> </u>	I 94	55
			1 103	55
	1		1 113	54
	/		1 122	50
250	· /		1 132	45
			I 14D	42
,	. /		I 150	39
200			1 160	33
	. /		1 169	26
	}		I 379	22
)			I 188	21
150			1 197	23
- 100	/		1 207	23
			1 216	21
-	/		I 55e	19
100		) -	I 235	17
,,00	/		1 245	15
_			1 254	13
-			1 263	12
50 <del> </del>		/ -	i 273	12
300			I 283	12
			I 292	11
0			1 301	3
-100	-50 0 VITY PR <b>0</b> f	50 100		

PROJECTILE TYPE -- REN, JHP, 385P

PROJECTILE VELOCITY (RPS) -243.54

PROJECTILE D	E FORMATION	I CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (NR		2) AREA (MM=+2)	I I PEMETRATION I DISTANCE GHM)	CAVITY RADIUS (MM)
6 37	6 <b>8</b> 63	<b>68</b> 63	1 . Q I 6	8 8
65	101	119	1 12	10
90	68	133	1 18	12
112	55	61	1 24	14
135 170	66	140	1 29 1 35	14 14
1 10	60	118	I 41	15
			1 47	15
0.00			1 53	15
300			59	14
			1 65	14
			I 71	13
<u>=</u> 250	( )		I 77 I 83	13 13
	1 )		1 89	12
ш	( )		1 95	12
200	) (		1 101	11
2			I 107 I 113	12
0	,		1 113 1 119	11 10
PENETRATION DEP	/ /		I 125	10
150			1 131	10
~ <del>~</del>	\ /		1 137	32
<del></del>	/ (		1 143	13
岁 100 卜	1	4	I 249: I 155	14 12
	1		: 161 I 161	12
<u> </u>	<b>\</b>		1 167	12
50			1 173	13
30	)	7	1 179	11
	\	İ	1 185	11
	\ \ \	; 	I 190	11 10
0			I 197 I 203	9
-100	-50 0		I 209	ģ
CI	AVITY PRO	OFILE	I 215	10
			1 220	II
			1 227	11
			! 233 ! 238	10
		•	I 239 I 245	10 9
			I 253	8
			I 256	8
		167	1 263	7
			1 268	6
			274	4

PROJECTILE TYPE -- REM, JHP, 38SP PROJECTILE WELDCITY (MPS) -- 259.69

PROJECTILE DEFORMATION						CAVITY REASUREMENTS		
			PRESENTED AREA (MM++2)		KK*+2)	I PENETRATI I DISTANCE	EMM ) RADIUSEMM )	
	8 41		54 67	54 69		1 0 1 5	12	
	72		65	151		1 12	12	
	97		66	124		1 18	13	
	1 21		96	124		X 24	15	
	143		82	103		I 30	17	
	177		123	129		35	17	
						I 41 I 48	18 18	
					,	1 54	19	
	300			<del></del>		1 59	19	
			ı	1		1 66	18	
			$\sqcap$			1 72	17	
工	050		) \			1 78	37	
<del> </del> -	250		. ( )		7	1 84	17	
ட			) \			I 90	16	
Щ			1			I 96	16	
	200					102	15	
Z			/ \			1 108 1 134	15 15	
0 N						1 120	16	
<b>⊢</b>			) (			I 126	36	
H	150	<b>—</b>				132	16	
RF						l 136	15	
						1 344	15	
لملا	100					1 150	15	
L N L L	100				7	1 156	14	
نسد، مسا						1 162	13	
·			/			1 168 I 174	13 13	
	50	-	1			1 180	13	
			\			1 186	13	
			\ /			J 192	îž	
				1		1 198	11	
	0					204	11	
	- 1	00	-50 <b>0</b>	50	100	I 210	10	
		CF	AVITY PROJ	FILE	1	216	9	
		-		1 0. 1		1 525	9	
						1 228	9	
					,.	235	<b>5</b>	
					i.	I 240 I 246	8	
					,	1 253	. <del>8</del> . 7	
						750	6	
					,	265	6	
				168	•	271	5	
						277	5	
					,	1	-	

PROJECTILE TYPE -- REM, JHP, 385P PROJECTILE WELDCITY (MPS) -- 298.09

PROJECTILE DE	FORMATION	<u> </u>	I CAVITY REASUR	EMENTS	
PENETRATION DISTANCE (MM) 11 40 62 78 89 101 112	TANCE (MM) AREA (MM**2) AREA (M		1 0 1 6 1 11 1 18 1 24 1 30 1 36 1 42	CAVITY IN 1 RADIUS (MM)  13  14  18  22  26  28  31  34	
300	1		I 48 I 54 I 60 I 66	35 36 36 35	
<u> </u>		_	1 72 1 78 1 84 1 90	34 32 31 29	
PENETRATION DEPTH		-	1 96: 1 102: 1 108 1 114	26 23 21 16	
H 150 -		_	1 120 1 126 1 132 1 138	14 11 7 5	
100 -			1 144	4	
50					
0					
	-50 0 VITY PROF	50 100 ILE			
			· .		

PROJECTILE TYPE --REN, JHP, 385P
PROJECTILE DIAMETER (CM) -- 9.868

PROJECTILE WELBCITY (MPS) -425.50

PROJECTILE DEFORMATION							HEA SURE HENT S	
	NETRA STANCI		PRESENTED	CRUSS-S 2) AREA (M	ECT	I I PERETRATIDI I DISTAMCE (1	E CAVITY	
	-4		98	98		1 0	21	
	22		215	220		I 6	30	
	52 72		145 . 152	145 153		1 12 1 18	37	
	78		124	199 124		l 18 I 23	43 45	
	110		131	132	,	1 23 1 30	<b>42</b> <b>4</b> 7	
	116		141	142	•	. 36	49	
			47#	***	•	1 42	52	
						. 48	54	
	0.0.0				•	1 54	55	
	300	F		T	٠ .	i 60	55	
						I 66	55	
						72	54	
工	250					I 78	52	
}	200			_	7 :	1 84	<b>5</b> 0	
Ω					:	J 90	48	
H						I 96	46	
	200	<u>_</u>			_} 1	102	45	
		1			1	1 109	43	
					1	I 114	40	
<b>—</b>			/		1	1 150	36	
Œ	150	-	/ {	_	-} !	1 126	30	
Œ				_		1 133	25	
<u>~</u>						1 139	19	
14.					1 -	145	13	
FNE	100	-		\ -		1 151	10	
للفا			/	\	-	1 157	9	
Ω.			/	1	1	I 163	9	
	5:43			1	1	1		
	50		\	/ -	1			
				/				
				/				
	8							
	_				-			
	-		-50 0		00			
		CA	VITY PRO	BFILE				

PROJECTILE TYPE -REM, JHP, .38 SPEC PROJECTILE VELOCITY (HPS) -205.83
PROJECTILE DIAMETER (CM) - 0.907

PROJEC	TILE DEFOI	RMATION	•	I CAVITY MEASUR!	EMENTS
PENETR DISTAN			ROSS-SECT	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM
	0	0	0	1 0	9
	0	0	0	1 4	10
	O	n .	0	9	10
	0	0	0 -	1 13	11
	0	0	0	1.8	13
			1	1 23	12
				1 27	11
				1 32	11
				I 36	12
300		T	]	I 41	12 12
	ì	,		I 46 I 50	12
				I 55	12
-T* 05.0		$\cap$		I	11
∓ 258 ⊢		( \	7	64	11
CL.				69	1 1
ثيبا	1	<i>)</i> \		73	ii
200	Ĺ.	( )		78	ii
				82	12
Z S				87	12
<u> </u>	İ			92	13
F 150	<u></u>			96	12
Œ				101	13
മ്പ				106	12
<del> </del>	İ			110	13
<u> </u>	$\vdash$			115	13
لبا			1	119	13
Ē.				124	1 4
			1	129	14
50	<del> </del> -		7 1	133	1.4
				138	13
				1.43	13
	1			147	13
3	1	and the same of th		152	13
-	100 -50	o 20	100	157 151	12
	CAVI	TY PROFIL	.E. ;		11 11
	21112		· ····	170	11
		•			10
				179	10
			•	184	9
			•	189	9
			1	193	9
			Ÿ	198	9
			1	203	9
			1	207	á
			1	212	8

I	221	6
1	226	6
1	230	6
1	235	6
I	239	5
1	244	5
Ţ	249	4
I	253	4
Ī	258	3
I	263	1
I	n	0
I	n	0

PROJECTILE TYPE -- REH, JHP, 38CAL PROJECTILE WELDCITY (RPS) -- 233.06

PENETRATION DISTANCE (RM) PRESENTED CROSS-SECT DISTANCE (RM) PARES (RM++++++++++++++++++++++++++++++++++++	PROJECTILE DE	FORMATION	ر در این در این این این در این در این در این در این در این در این در این در این در این در این در این در این در در این در این در این در این در این در این در این در این در این در این در این در این در این در این در این در ای	CAVITY REASUR	EHERTS	
30 52 52 1 12 9 49 56 56 56 1 17 11 125 71 142 1 30 13 133 98 158 1 35 13 1 42 14 1 13 1 53 12 1 48 13 1 53 12 1 53 12 1 77 10	DISTANCE (MH)	AREA (HH++2)	AREA (HH++2)	I DISTANCE CHNI	RADIUS (MM) 9	
75 61 61 123 11 115 71 142 1 30 13 133 98 158 1 35 13 1 42 14 14 1 48 13 1 59 12 1 59 12 1 77 10 1 77 11 1 77 10 1 89 10 1 99 1 100 9 1 101 9 1 100 9 1 113 9 1 149 8 1 131 8 1 137 8 1 149 8 1 137 8 1 149 8 1 137 8 1 149 8 1 137 8 1 149 8 1 137 8 1 149 8 1 137 8 1 149 8 1 137 9 1 149 8 1 137 9 1 149 8 1 137 9 1 149 8 1 137 9 1 149 8 1 137 9 1 149 8 1 137 9 1 149 8 1 137 9 1 149 8 1 137 9 1 149 8 1 137 9 1 149 8 1 137 9 1 149 8 1 137 9 1 149 8 1 137 9 1 149 8 1 137 9 1 149 8 1 137 9 1 149 8 1 137 9 1 149 8 1 137 9 1 149 8 1 137 9 1 149 8 1 139 11 1 149 8 1 139 11 1 149 11 1				5	9	
115 71 142   30 13   13   13   13   13   13   13						
133 98 158   35   13   14   14   14   15   15   15   17   11   17   10   10   10   10   10	75	61	61	1 23		
42   14   15   15   17   10   10   10   10   10   10   10						
300  H 250  H 250  A 300  H 250  A 300  H 250  A 300  H 250  A 30	1 33	98	158			
300  H 250  H 250  UND  H 250  OND  H 250  H 250  OND						
# 250  #						
1	300			1 59		
1		' '/ \	1			
1		/ /				
1 107   9   1 113   9   1 114   9   1 125   9   1 131   8   131   8   131   8   131   8   131   8   131   8   131   8   131   8   131   131   8   131   13	工 25n 上					
1 107   9   1 113   9   1 114   9   1 125   9   1 131   8   131   8   131   8   131   8   131   8   131   8   131   8   131   8   131   131   8   131   13	<b>⊢</b>	/ \				
1 107   9   1 113   9   1 114   9   1 125   9   1 131   8   131   8   131   8   131   8   131   8   131   8   131   8   131   8   131   131   8   131   13		1 1	·	1 95	9	
1   113   9   9   1   125   9   1   131   8   133   8   133   8   133   8   133   8   133   8   133   8   133   8   133   8   133   133   133   134   135		\			9	
1   117   9   1   125   9   131   8   137   8   1   143   8   1   149   8   1   149   8   1   167   9   1   167   9   1   167   9   1   179   10   1   185   10   1   185   10   1   185   10   1   185   10   1   185   10   1   185   10   1   185   10   1   185   10   1   185   10   1   185   10   1   185   10   1   185   10   1   185   10   1   185   10   1   185   10   1   185   10   1   185   10   1   185   10   10   10   10   10   10   10   1		1 /	=		9	
1 173 9 1 179 10 1 185 10 1 191 11 1 203 12 -100 -50 0 50 100 1 209 13 CAVITY PROFILE 1 221 14 1 227 13 1 239 12 1 245 10 1 251 10 1 251 10 1 251 10 1 263 10	5	1. /				
1 173 9 1 179 10 1 185 10 1 191 11 1 203 12 -100 -50 0 50 100 1 209 13 CAVITY PROFILE 1 221 14 1 227 13 1 239 12 1 245 10 1 251 10 1 251 10 1 251 10 1 263 10	<b></b> -1					
1 173 9 1 179 10 1 185 10 1 191 11 1 203 12 -100 -50 0 50 100 1 209 13 CAVITY PROFILE 1 221 14 1 227 13 1 239 12 1 245 10 1 251 10 1 251 10 1 251 10 1 263 10	150	)	=	i 131		
1 173 9 1 179 10 1 185 10 1 191 11 1 203 12 -100 -50 0 50 100 1 209 13 CAVITY PROFILE 1 221 14 1 227 13 1 239 12 1 245 10 1 251 10 1 251 10 1 251 10 1 263 10	8				8	
1 173 9 1 179 10 1 185 10 1 191 11 1 203 12 -100 -50 0 50 100 1 209 13 CAVITY PROFILE 1 221 14 1 227 13 1 239 12 1 245 10 1 251 10 1 251 10 1 251 10 1 263 10	<b>⊢</b>				8	
1 173 9 1 179 10 1 185 10 1 191 11 1 203 12 -100 -50 0 50 100 1 209 13 CAVITY PROFILE 1 221 14 1 227 13 1 239 12 1 245 10 1 251 10 1 251 10 1 251 10 1 263 10	<u> </u>	1 (		1 197 1 155	8	
1 173 9 1 179 10 1 185 10 1 191 11 1 203 12 -100 -50 0 50 100 1 209 13 CAVITY PROFILE 1 221 14 1 227 13 1 239 12 1 245 10 1 251 10 1 251 10 1 251 10 1 263 10	ω l	] }			9	
1 179 10 1 185 10 1 191 11 1 203 12 -100 -50 0 50 100 1 209 13 CAVITY PROFILE 1 221 24 1 227 23 1 233 13 1 245 10 1 251 10 1 251 10 1 263 10	۵.			I 167		
1 185 10 1 191 11 1 203 12 -100 -50 0 50 100 1 209 13 CAVITY PROFILE 1 221 14 1 227 13 1 239 12 1 245 10 1 251 10 1 251 10 1 263 10	F0	) )				
1 198 11 197 11 203 12 -100 -50 0 50 100 1 209 13 CAVITY PROFILE 1 221 14 1 227 23 1 233 13 1 245 10 1 258 10 1 263 10	20	( )	. –			
1 203 12 -100 -50 0 50 100 1 209 13 CAVITY PROFILE 1 221 14 1 227 23 1 233 13 1 245 10 1 251 10 1 251 10 1 263 10						
-100 -50 0 50 100 I 209 II 209 CAVITY PROFILE I 221 II 227 II 233 II 239 II 245 II 251 II 251 II 257 II 251 II 257 II 263 II 263 II 269		\ \./				
CAVITY PROFILE I 221 24 1 227 23 1 233 13	0					
CAVITY PROFILE I 221 24 1 24 1 227 23 1 233 13 1 239 12 1 245 10 1 251 10 1 257 10 1 263 10 173 1 269 8	-100	-50 <b>o</b>	50 100			
I 227 23 I 233 I3 I 239 I2 I 245 I0 I 251 I0 I 257 I0 I 263 I0	CA					
1 233 13 1 239 12 1 245 10 1 251 10 1 257 10 1 263 10 173 1 269 8			1 L. L.			
I 23% I2 I 245 I0 I 25k I0 I 257 I0 I 263 I0					13	
I 245 10 I 25k 10 I 257 I0 I 263 I0 173 I 269 8				I 239	12	
1 257 10 1 263 10 173 1 269 8				1 245	10	
1 263 10 173 1 269 8				I 251		
173 <b>1 269</b> 8				1 257	10	
1/2 1 402			177	1 263		
· 1 275 8			1/3	1 275	8	
1 28) 8				1 28)		

### ROUND NUMBER 860 CONTINUED

ī	287	6
1	293	6
1	<b>299</b>	6
I	305	5
1	311	5
1	317	5

ROUND NUMBER -- 895 PROJECTILE MASS (GM) -- 8.100

PROJECTILE TYPE --REM, JHP, 357MAG PROJECTILE VELOCITY (MPS) --230.43

PRO	JECTI	LE DE	FORMATION		I CAVITY MEASUR	EMENTS
	NETRAT TANCE +7 13 55		PRESENTED AREA (MM**2) 59 54 83	CROSS-SECT	9	CAVITY RADIUS (MM) 12 11 13
	92 125 152		105 135 175	185 175 177	I 28 I 37	14 15
	176		165	170	I 56 I 66 I 75	12 13 12
	300		T · 1		94 104	12 13 14
77 <u>1</u> 2	Pac	<b>-</b>			1 123 1 133	14 14 13
	ଅଧ୍ୟ				151 161	14 14 14 15
TIGN	150	_			180 189 199	15 15 14
NETRG NETRG	100				21 <sup>p</sup> 227	15 12 12 10
g m S		,			246 256 263	10 10 9
	50				284 294	8 7 4
	0	L tod CF	-50 c RVITY PRO	50 190 FILE		

PROJECTILE TYPE -REM, JHP, .38 SPEC PROJECTILE VELOCITY (MPS) =241.07
PROJECTILE DIAMETER (CM) = 0.907

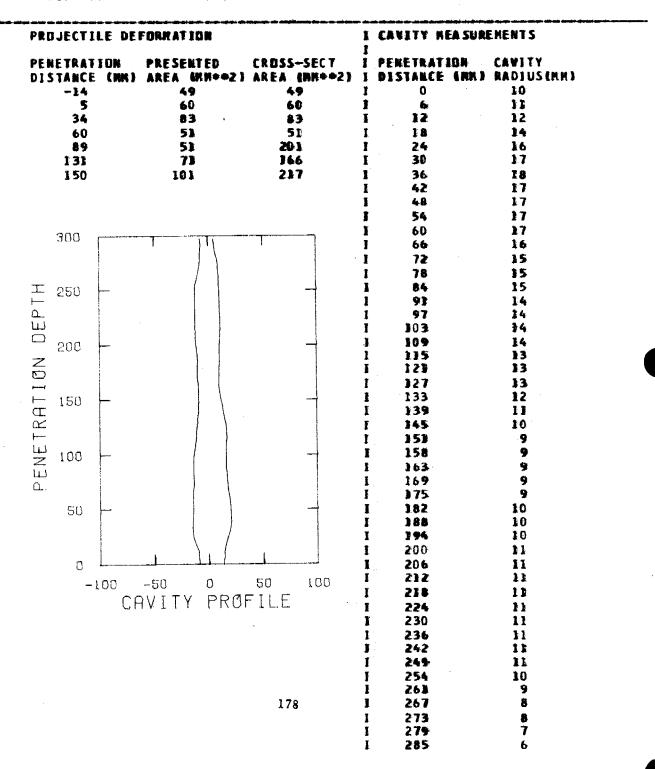
PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) O O O O	PRESENTED AREA (MM**2) 0 0 0 0	CROSS-SECT AREA (MM**2) 0 0 0	I PENETRATION I DISTANCE (MM) I 0 I 5 I 9 I 14 I 18 I 23 I 28 I 32	CAVITY RADIUS(YM) 14 16 17 18 19 20 20
	T T T T T T T T T T T T T T T T T T T	100 ILE	I 37 I 42 I 46 I 51 I 56 I 60 I 65 I 69 I 74 I 79 I 83 I 98 I 97 I 102 I 106 I 111 I 116 I 120 I 125 I 129 I 134 I 139 I 143 I 148 I 153 I 157 I 162 I 166 I 171 I 176 I 176 I 180 I 171 I 176 I 180 I 190 I 194 I 199 I 203 I 208 I 213 I 217	20 20 20 19 17 15 15 15 14 14 13 12 11 11 10 9 9 9 8 7 7 6 6 6 5 5 5 4

# ROUND NUMBER 12 CONTINUED

1	222	4
I	227	3
I	231	4
1	234	1
1	· "n	n
I	0	ŋ

PROJECTILE TYPE -- REM, JHP, 30SP

PROJECTILE VELOCITY (MPS) -251.16



### ROUND NUMBER 865 CONTINUES

I	291	5
I	297	5
I	303	5
1	30%	5
I	315	5
Ŧ	321	5

PROJECTILE TYPE -- REN ,JHP ,385P

PROJECTILE VELOCITY (MPS) -258.47

PR	DJECTIL	E DEFO	RMATION	<del> </del>	- <del> </del>	CAVITY MEASU	RE NE NT S	
			RESENTED REA WHOOZ			DISTANCE CHA	CAVITY RADIUS (NHI	
	-12		55 57	55 57		0 L 5	8 . 9	
	38		59 .	97	i	11	10	
	66		63	146		17	II	
	97		83	155	Ì	23.	13	
	141		69	179	1	29	15	
	162		63	193		35	17	4
					1	4 <u>4 1</u> 4 7	17 18	
						53	18	
	000					59	17	
	300		TIL		1	65	18	
					1	71	17	
						77	16	
干	250		1 1	_ <del>-</del> }	]	83	14	
4			\ \		1	. 89 i 94	14 14	
ليا			) \			l jój	14	
	000			į	Ì	107	14	
	200		\ /	. 7	1	112	13	4
N D			) /		1	119	13	
Ĭ	į		1 1		1	124	14	
	150		/ \			130	15	
Z.			( )			136	16	
· <del>  L</del>			\ (			142 148	15 14	
ENETRAT	100		1 1	Į	1	154	12	
Z	100	_		٦	ì	160	32	
<u>a-</u>			/		Ī	166	12	
سلسه			1		1	1.72	12	
	50	_	( )		I	378	12	
						184	13	
			\ /	ļ	1	190 196	14 15	
	o L		1 11		i	202	15	
					_ i	208	17	
	} {		50 0	50 10	U	214	17	
		CHV	ITY PRO	FILE	1	220	25	
					1		14	
					1		15	
		•			]		15	
					]		16	
					1		16 16	
				180	,		16	
				100	i		16	
					ī		16	
						280	15	

## ROUMD MUMBER 866 CONTINUED

1	285	14
1	293	12
I	297	12
I	303	3 1
1	30%	10
Ĭ	315	9
Ī	321	7
ī	327	7
ì		_

PROJECTILE TYPE -REM, JHP, .38 SPEC PROJECTILE VELOCITY (MPS) -263.88

PROJECTILE DIAMETER (CM) - 0.907

PROJE	CTILE DE	FORMATION		I CAVITY MEASUR!	EMENT8
		PRESENTED AREA (MM**2)	CROSS=SECT AREA (MM**2)	I I PENETRATION I DISTANCE (MM)	
	0 D	0 0	•	I 0	11
	0	0		I 4 I 9	12
	0	n	_	1 13	14
	٥	0		I 18	16
			-	1 22	18
				1 27	19
				I 32	20
300	<u></u>		T	1 36	22
300		1 1		I 41	23
			!	1 45	23
			•	I 50	24 .
550	<u> </u>			I 55 I 59	25
				I 59 I 64	25 25
1	}		1	1 68	
.i G 000				1 73	25 25
200				1 77	25 25
<u>.</u> 1		_		1 82	24
_'			į	1 87	22
150				I 91	22
150		/ (		1 96	20
		/ \		I 100	19
-	İ	/ \		1 105	18
100	<u> </u>	/		I 109	17
- ا		/	,i	I 114	1.5
_			•	1 119	1 4
	:			I 123	13
50	<u> </u>			1 128	11
	:		f	I 132 I 137	10
	:		}	1 141	8
, ,		1 . )	1	I 146	7
				I 150	6
			100	I 155	6
	CAV	/ITY PROFI	I.E	I 160	6
				I 164	6
ال		· ·		169	6
				I 173	5
				I 176	5
				1 0	0
				1 0	0

ROUND NURBER -- 867

PROJECTILE ASS (GR) -- 8.300

PROJECTILE TYPE -- REM, JHP, 385P PROJECTILE VELOCITY (MPS) -- 268.83

PROJECTILE DE	FORMATION	The state of the s	CAVITY HEASUR	MERTS
PERETRATION DISTANCE (NN) -11	PRESENTED AREA (MM+=2) 51	51	I I PENETRATION I DISTANCE (MM) I O	13
10 40	54 53	, 54 53	12	14 14
69	72	72	18	15
101 147	6 l 63	62 137	l 23 l 29	16 18
169	78	159	1 36	19
•		j	42	20
			48	19
300			54 59	18
	' / '	1	57. 66	18 18
	/ /		72	18
I 250			78	19
	1.		83	18
<u>U</u>			89 8 96:	18 16
			102	15
200		7	108	14
N O	\		114 1 320	13 14
<del>1</del> ₹			126	15
H 150		7	132	16
<u>~</u>		1	138	16
<u>├-</u>	)		144 1 350	16
N 100	/ \		1 156	16 17
LL )			162	17
Ω.	}	į .	168	17
50 -		<del>/</del> .	! 374 ! 180	17
				18 - 18
			192	18
0 —			198	17
-100	-50 0		1 204 I 210	17 17
		FILE	216	18
,	14-111 (100)	4 has been	222	17
			228	18
		!		18
		]		18 18
			253	17
			I 258	18
		183		17 17
			276	16
			282	15

## ROUND WUNRE AST CONTINUED

Ī	288	15
1	294	13
I	300	11
1	306	10
I	312	9
I	319	7
Ī	325	6
1		

PROJECTILE TYPE -- REM, JHP, 357

PROJECTILE VELOCITY (MPS) --290-17

PROJECTIL	E DEFORMATION	I CAVITY MEASUR	EMENTS	_	
PENFTRATI DISTANCE -11 11 44 74 108 155 177	ON PRESENTED (MM) AREA (MM**2 68 59 75 64 77 120 102	CROSS-SECT ) AREA (MM**2) 70 50 73 160 162	I PENETRATION I DISTANCE (MM) I O I 9 I 18 I 28 I 37 I 47 I 56 I 66	CAVITY RADIUS (MM) 20 19 19 20 22 22 21	
300 p	T 1	···•	T 75 I 84 I 94	21 22 20	
西 250 上			I 103 I 113 I 122 I 131	20 13 19 17	
200 L-			I 141 I 150 I 160 I 169	17 17 16 13	
NO1 150		-	• • •	20 19 18 18	
F 100 -		-	I 216 I 226 I 235	17/ 18/ 17	
ш С. 50 —			Z 54 Z 263	16 15 17 17	
		]	1 282 I 291 I 301	1 6 1 : 1 4	
9 i -180	THE CHITY PROF	50 ICC I	319	13	

PROJECTILE DEF	ORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 0 0 0 0 0	PRESENTED AREA (MM**2) 0 0 0 0 0	CROSS=SECT AREA (MM++2) 0 0 0 0	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27	CAVITY RADIUS(MM) 10 12 16 18 21 24 28
380 F	· · · · · · · · · · · · · · · · · · ·		I 32 I 36 I 41 I 46 I 50 I 55 I 60 I 64	31 32 34 35 35 35 35 35
A 200 - 150		_	1 69 1 73 1 76 1 83 1 87 1 92 1 97 1 101	35 34 33 32 31 30 28 27
요			I 106 I 111 I 115 I 120 I 125 I 129 I 134	26 25 23 22 21 19
-100 -	J J 50 0 VITY PROF	50 100 ILE	I 138 I 143 I 146 I 152 I 157 I 161 I 166 I 171 I 175 I 180	16 15 14 13 11 9 8 7 6

PROJECTILE DEFORMATION I CAVITY MEASUREMENTS PENETRATION PRESENTED CROSS-SECT I PENETRATION CAVITY DISTANCE (MM) AREA (MM++2) AREA (MM++2) I DISTANCE (MM) RADIUS(MM) n n n O O Ī A Ì I I RATION I Ĭ <del>|---</del>-اليا لا Ċ. 1.8 1.3 J -50 O -100 CAVITY PROFILE I I Ţ I

PROJECTILE TYPE -- RER .JHP .30CAL PROJECTILE VELOCITY (MPS) -- 311.20

PROJECTILE DE	FORMATION	I CAVITY HEA SUREMENTS		
PENETRATION DISTANCE (NM) 3 29 54 72 97 129 143	PRESENTED AREA (MR++2) 59 121 145 134 123 115 108	CROSS-SECT I AREA FRM++21 59 121 147 134 124 116 112	PERETRATION I DISTANCE (MR) I 0 I 6 I 12 I 18 I 24 I 30 I 35 I 41	15 16 17 19 22 25 27
	-50 O VITY PRO	50 100 FILE	48	33 35 36 38 39 38 38 37 36 35 34 32 31 28 25 23 21 18 16 15 13 12 11 9 9 9 8 7 6 6 5 4 3 2
		188	4	

PROJECTILE TYPE -- REM, JHP, 38CAL PROJECTILE VELOCITY (MPS) -- 333.76

PROJECTIL	DEFORMATION		I CAVITY MEASUR	ERENTS
	INN) AREA (MM++2)	CROSS-SECT AREA (MR*+2)	I PERETRATION I DISTANCE (NN)	CAVITY RADIUS (MM)
-5 21	53 <b>259</b>	53 259	1 0 1 5	15 16
56	330	332	i ii	18
83	221	233	1 17	21
99	154	156	1 23	25
144	164	166	I 29	30
158	93	95	1 35	33
			I 40	36
			1 46	39
300 -			I 52	40
300			j 58	42
		1	I 64	43
			1 69	44
王 250 -			1 76	44
DEPTH 520			I 8F	44
			1 87	43
			I 93	42
200 -			I 99	40
Z	/ \		1 105	38
	/ \		1 110	36 33
PENETRATION 001 120	) \		1 116	33
<b>50</b> 上	/ \	4	I 122	30
7	/	1	1 128	28
	/		1 134	26
ш	/		1 139	24 22
岁 100 上	/	\\	1 145 1 151	19
Й ļ	/			
Ц		1	1 157 1 163	16 13
50 F		/	1 169	11
20 F	\ /	· -	1 175	10
1	\ /		I 181	8
			1 186	8
o L	_	1	1 192	7
		··•	1 198	6
-100	-50 D	50 100	1 204	5

PROJECTILE TYPE --REM, JHP, 357MAG PROJECTILE VELOCITY (MPS) --345, 95

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENSTRATION DISTANCE (MM) -3 16 47 71 96 123 133			I PENETRATION I DISTANCE (MM) I 0 I 9 I 18 I 28 I 37 I 46 I 56 I 65	
200 F E 200 F 200			1 74 1 84 1 93 1 102 1 112 1 121 1 131 1 140 1 149 1 159 1 168 1 177 1 187 1 196 1 206 1	48 48 46 46 44 41 36 31 24 19 14 11 9 7
-050 Q1	-50 0 AVITY PRO	53 153 FILE		

PROJECTILE TYPE -REM, JHP, .38 SPEC PROJECTILE VELOCITY (MPS) -355.72
PROJECTILE DIAMETER (CM) - 0.907

PROJECTILE DEFORMATION					I CAVITY	CAVITY MEASUREMENTS					
	PENETA		N PI	RESENT REA (M		CROSS		I I PENETR I DISTAN		CAVITY RADIUS(MM)	
		0		0			)	1 0		16	
		0		0				1 4		19	
		0		n			)	1 9		23	
		0		0				I 13		26	
		U		U		Ą	)	I 18 I 23		28 30	
								1 27		32	
										33	
								1 37		35	
								i 41		35	
	300	Γ	т-		T		7	I 46		35	
			•	•				I 51		35	
							1	I 55		35	
_	- 050	i						I 60		34	
1	250	_				_	1	1 65		33	
Ĺ.				$\cap$			1	I 69		35	
4	ۮ			1 \			1	74		30	
<u></u>	3 200	_		1/		_	4	1 79		29	
Z				1			1	I 83		27	
É	5						1	I 88		25	
-				j	1		i .	I 93 I 97		23 21	
<b>—</b>	150	-		- 1	1	-	-1	I 102		50	
Ü							!	106		19	
<u> </u>	-			- 1	}		1	i 111		17	
L	٠ ا				\		1	116		17	
نا 2 نا	188			/		_	1 :	1 120		15	
غا	ال			/	\		:	1 125		16	
Ü.					\			I 130		1.5	
	50	_	1		1	_	_	134		16	
	.50		1		)		1	139		16	
		į	'	\	/		1	144		15	
				\	_/		1	148		1.5	
	Ç	L					_ '	153		14	
		100	-50	С	5	. 1		158		14	
								I 163 I 167		13	
		ţ	CAVI	II L	ROFI	L. E.		172		12	
							; !	176 181		11	
							, 1	185		10	
							•	190		in	
							1	195		9	
										9	
							,			Ä	
							j			7	
							•	213		7	
							1			6	

1	223	5
Ţ	227	6
1	232	5
I	236	1
I	0	0
Ţ	0	0

PROJECTILE TYPE --REM, JHP, 357MAG PROJECTILE VELOCITY (MPS) --382.52

PR	DJECTILE DE	FORMATION	*******	I CAVITY MEAS	UREMENTS
	-7	AREA (MM**2) 79	AREA (MM**2)	I PENETRATION I DISTANCE (M	CAVITY M) RADIUS (FM) 45
	19 53 81 109 144 157	263 112 116 113 132 157	263 112 117 113 132 177	I 9 1 3 1 3 1 3 7 1 4 7 1 5 6	40 41 48 50 52 52
	300	T	<u> </u>	I 65 I 75 I 85 I 94 I 104	51 50 48 45 42 36
工 亡 止	750			I 123 I 132 I 142 I 151	35 25 26 23
O NOI.	200			I 161 I 170 I 180 I 189 I 199	21 17 15 14 14
	150			I 208 I 219 I 227 I 237	16 15 15 12
141 2	53			I 246 I 256 I 263 I	10 8 0
		1/ L -50 D VITY PROF	50 150 ILE		

PROJECTILE TYPE --REM, JHP, 38CAL PROJECTILE VELOCITY (MPS) -- 398.37

PROJECTILE D	E FORMATION	I CAVITY HEASUR	EMENT S	
PENETRATION DISTANCE (MM -9 14 44 67 77 105 116	PRESENTED 3 AREA (MM>=) 47 147 198 237 238 226 134	CROSS-SECT 2) AREA (MH++2) 49 147 198 239 238 227	PENETRATION	CAVITY RADIUS (HM) 30 33 37 40 43 45 48
PENETRATION DEPTH  250  -100  -100  -100	-50 0 CAVITY PR	50 100 OFILE	1 47 1 53 1 59 1 65 1 70 1 76 1 82 1 88 1 94 1 100 1 106 1 112 1 117 1 123 1 129 1 135 1 147 1 153 1 159 1 165 1 177 1 182 1 188 1 194 1 200 1 206 1 212 1 218 1 223 1 223 1 223 1 223	54 55 56 56 56 56 56 53 51 49 45 41 36 31 29 26 24 28 19 17 15 14 12 11 10 10 8 8 7 6 6
		104	I 247 I 253 I	5 4

ROUND NUMBER -- 891 PROJECTILE MASS (GM) -- 8.100

PROJECTILE TYPE --REM.JHP.357MAG PROJECTILE VELOCITY (MPS) --430.07

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
		CROSS-SECT AREA (MM**2)	I I PENETRATIOU I DISTANCE (MM)	CAVITY RADIUS (MM)
-3	96	96	I 0	36
26	226	<del></del>	I 9	42
62 92	119	. 118	1 18 1 28	50 54
92 121	165 136	166 136	1 25	94 57
154	144		1 31 1 46	5.4 5.9
167	128		I 56	61
101	150	167	t 65	61 61
			74	61
388			I 84	<u>5.4</u> 5.9
5.2.	T		I 93	5 <b>7</b>
			r 102	5 E
			T 112	5 1
75- PSU F-			I 121	48
± 130 F.		•	I 131	42
iu.	/ \		140	37
(7)	/ \		I 149	3.7
-/tu: 📙	/ /	<u>-</u> •	I 159	A C
8			168	26
<b>5</b> 0	/		I 177	22
F 15.2		,	186	1 8
E 150	)	\ -	196	l =
	/		I 205	12
<b>⊢</b>			I 215	.)
1. (			1 224	<b>)</b>
	/	1	I 233	6
בנו		1 1	243	6 .
2.		}	I 25?	5
5.3			Ĭ	
3.0		] -7		
		/		
	\	<i></i>		
g L		<u> </u>		
-100	- <b>5</b> 0 g	53 193		
	•			
ί, -	BVITY PROF	FILE		

PROJECTILE MASS (GM) --10.238

PROJECTILE TYPE --REM, JHP, 357MAG PROJECTILE VELOCITY (MPS) --269.14

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENFTRATION DISTANCE (MM) 2 26 74 118 154 139 218	PRESENTED AREA (MM**2) 73 81 97 121 172 201 246	CROSS-SECT AREA (MM**2)	65	17 15 17 16 19 20 21
300			74 83 93 102	20 12 16 19
五 日 五 日 日 日		- 1	1 112 1 121 1 131	18 13 17 17
200 -			159 168	1 6 1 9 2 1 2 0
ENETRATION 100		I	187	19 19 20 20
N 100		- I	224 233	18 19 18 18
50		— I	262 271 280	17 16 14 12
	-50 0 VITY PRØF	50 100		10

PROJECTILE TYPE --REM, JHP, 357MAG

PROJECTILE VELOCITY (MPS) --320,65

 PR	OJECT	LE DE	FORMATI	0N			I C	AVITY MEASU	IR EMENTS	· • • · · · ·
	NETRAI STANCE -1	TION E (MM)	PRESEN AREA ( 71		CROSS	(MM**2)		ENETRATION ISTANCE (MM		
	24		104		10		Ī	9	23	
	57		111		11		ī	19	28	
	85		101		10		Ī	2.5	36	
	117		113		20		Ť	37	₹ 1	
	159		98		9		Ī	47	31	
	177		101		11		Ī	56	3,4	
							[	65	3.5	
							ſ	7 =	37	
							Ţ	Ω÷	3.4	
	200						I	94	34	
	300			11			Ţ	104	3 ⇒	
				/ \			I	112	₹4	
•		i					I	123	25	
$\top$	250	L	1	'			I	132	3.7	
二	200		/				I	142	i 1	
OEP		-	- 1	ļ			Ī	151	". <b>1</b>	
لتا							I	161	27	
	200		)				Ī	170	26	
,	200		}	\			I	180	22	
Z O			/	\			Ţ	189	1.2	
			- 1	1			Ĭ	199	12	
	150	lacksquare		1		_	i	203	15	
$\Box$	100		)				1	218	19	
$\propto$		İ	/				Ī	227	19	
⊢			1				I	236	19	
PENETRAT	100	-	Ì	}			Ī	246	1 5	
$\leq$	100		}	/			[	256	1.5	
<u>П</u>			(	}		İ	I	265	12	
ч-		1	}	/			I	275	13	
	50	L	1	/		$\rightarrow$	I	284	9	
	-		1	1		İ	Ţ	294		
			[	/			Ī	303	<b>F</b>	
			. \	. /			I	313	7	
	Q						Ţ	322	7	
		100	-50	0	50		1			
						100				
		CH	VITY	PROF	1 L. t.					

PROJECTILE TYPE -- REM, JHP, 357MAG

PROJECTILE DE	FORMATION	I CAVITY MEASUR	EMENTS		
PENETRATION DISTANCE (MM) 1 28 63 91 119 153 165	PRESENTED AREA (MM**2) 91 209 208 204 231 202 221	CROSS-SECT AREA (MM**2) 91 209 208 204 232 204 224	I PENETRATION I PENETRATION I OISTANCE (MM) I O I 9 I 13 I 28 I 37 I 47 I 56	CAVITY RADIUS (MM) 35 36 40 46 51 55	
PENETRATION DEPTH  0 00 050  0 0 050  0 0 050			1 65 1 75 1 84 1 93 1 103 1 112 1 122 1 131 1 141 1 150 1 159 1 169 1 178 1 188 1 197 1 207 1 216 1 225 1 235 1 244 1 253 1 263	58 59 59 57 56 53 49 45 40 35 31 27 24 20 17 13 10 8 8 7	
-100	-50 0 AVITY PROF	50 100 FILE			

PROJECTILE TYPE -- REM, JHP, 357MAG PROJECTILE VELOCITY (MPS) -- 353.87

PROJECTILE DEF	ORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) -3 21 55 82 109 145 158		CROSS-SECT AREA (MM**2) 68 127 156 131 177 177 177	I PENETRATION I DISTANCE (MM) I 0 I 9 I 18 I 28 I 37 I 47 I 56 I 66	
	-50 0 VITY PROF	50 100	I 75 I 85 I 94 I 104 I 113 I 123 I 132 I 142 I 151 I 161 I 170 I 180 I 189 I 199 I 208 I 218 I 227 I 237 I 246 I 256 I	5 2 5 2 5 1 6 2 6 4 7 3 5 3 7 2 9 2 7 2 3 1 9 1 4 1 2 1 0 7 7 5

PROJECTILE MASS (GM) --10.238

PROJECTILE TYPE -- REM. JSP. 357MAG

PROJECTILE VELOCITY (MPS) -- 320.95

Р	ROJECTI	LE DE	FORMATION		I CAVITY MEASUR	EMENTS	
	ENETRAT I STANCE -8 17 54 90 131 190 218		PRESENTED AREA (MM**) 65 62 67 60 72 51 60	CROSS-SECT 2) AREA (MM**2) 65 208 151 227 73 278 224	I PENETRATION I DISTANCE (MM) I 0 I 9 I 18 I 28 I 37 I 46 I 56	CAVITY RADIUS (MM) 22 17 20 21 22 22 21	
					I 65 I 75 I 84	21 20 21	
	3 <b>0</b> 0				I 93 I 103 J 112	20 23 20	
⊤ ( (1)	<u>-</u> 250			-	I 122 I 131 I 140	20 21 21	
L	5 200		<u>}</u>	\ - <del>- </del>	I 150 I 159 I 168	20 19 20	
(E.					I 178 I 187 I 196	19 17 14	(
7 7 7	<				I 206 I 215 I 225	16 17 17	
1	192 193	_		i i	I 234 I 243 I 253	17 16 15	
ε	50				T 262 I 272 I 281 I 290	16 15 14 13	
	C 	 	<u> </u>		I 300 . I 309 I 318	13 11 12	
	- (			OFILE	Ť		

ROUND NUMBER -- 897

PROJECTILE MASS (Gh) --10,238

PROJECTILE TYPE -- REM, JSP, 357MAG

PROJECTILE VELOCITY (FPS) --356.01

PROJECTILE	DEFORMATION		I CAVITY MEASUR	EMENTS	
PENETRATIO DISTANCE ( -7 22 63 101 145 206 236	N PRESENTED MM) AREA (MM**2) 61 48 50 60 66 86 85	CROSS-SECT AREA (MM**2) 63 48 50 192 163 87 129	I PENETRATION I DISTANCE (MM) I 0 I 9 I 18 I 20 I 37 I 46 I 56 I 65	CAVITY RADIUS (MM) 27 24 24 26 27 23 29	
3 <b>0</b> 0		· ·	I 75 I 84 I 94 I 103	26 25 25 29	
F 200 +		-	I 113 I 122 I 131 I 141 I 150	32 33 30 26 26	
CN CE		;	I 160 I 169 I 179 I 188	25 24 25 24	
E 150		1	I 197 I 207 I 216 I 226 I 235	22 20 21 22 19	
100 H			I 244 I 254 I 263 I 273	20 21 22 20	
50		<u> </u>	1 282 1 292 1 301 1 311	20 19 17 15	
- t Si		50 100 i FILE	I 320	16	

PROJECTILE TYPE -- REM, JSP, 357MAG

PROJECTILE VELOCITY (MPS) --394.11

OJECTILE DEFORMATION	I CAVITY MEASUREMENTS
NETRATION PRESENTED CROSS-SECT STANCE (MM) AREA (MM**2) AREA (MM**2) 142 117 117 166 82 172 195 115 184 227 92 208 259 114 177 306 79 185 327 89 208	I PENETRATION CAVITY I DISTANCE (MM) RADIUS(MM) I 0 32 I 9 31 I 18 35 I 28 38 I 37 39 I 47 38 I 56 39 I 65 37
200 - 150 - 50 100 - 100	I 75 39 I 84 4L I 94 42 I 103 41 I 112 37 I 122 35 I 131 35 I 141 35 I 150 35 I 160 34 I 169 32 I 178 29 I 188 31 I 197 31 I 207 27 I 216 27 I 226 27 I 235 26 I 244 26 I 254 25 I 263 24 I 273 21 I 282 20 I 292 19 I 301 18 I 310 17 I

PROJECTILE TYPE -- REM, L, 357MAG

PROJECTILE VELOCITY (MPS) --359.97

ROJECT	TILE DE	FORMATION	CAVITY MEASUREMENTS		
ENETRA		PRESENTED AREA (MM**2)	CROSS-SECT	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM)
-11		52	52	1 0	2 **
Lô		68		I 9	22
60		82		1 n	22
100		107		I 28	26
145		124	183	I 37	27
206		174	191	47	27
231	L	258	<b>2</b> 63	f 57	28
			,	<b>1 6</b> 6	27
			•	76	27
900	f			I 85	25
		1 / 1		I 95	26
	ļ	1	1	105	23
	i	1		114	23
୧୯୯	<del> </del>	!		124	24
	Ī		,	[ 133	24
ı	ļ			[ 143	23
r	1	/	!	152	<b>2</b> %
' PGO	<del>  -</del>			162	23
· )	į		1		25
)		\	1		26
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150	<del> </del>	)			<b>2</b> 0
				210	29
				219	₹2
100			1	229	3.2
100	<del> </del>	/	<del> </del>	238	3.2
		}		243	3.2
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			I		27
		\ /	1	296	24
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C	L	<u> </u>	<u> </u>	315	27
	100 -	50 C :	50 190 <sup>1</sup>		
		/ITY PROF			

PROJECTILE TYPE --REM.L.357MAG

PROJECTIL	E DEFORMATI	ION	CAVITY MEASUR	EMENTS		
PENETRAT I DI STANCE -7 22 56 88 122 163 177	ON PRESEN (MM) AREA ( 221 242 239 251 227 174 207	(MM**2) AREA 1 2 2 2 3 2 1 2 7 2 4 1	S-SECT	PENETRATION DISTANCE (MM) 9 1 19 28 37	CAVITY RADIUS (MM) 36 34 40 43 44 44 45 46	
300 F	T	7 1	] 		46 46 46 46 46	
工 250 a				123 132 142	46 43 40 38	
N CN CO CO CO	_			161 170 180 189	35 35 <b>34</b> <b>30</b>	
150 CE 61 F				218 227	29 27 26 23	
- <u>19</u> 100   2.				246 256 265	20 18 15 12 10	
50 ·				284 · 1 294 1 303 1 313	10 9 9 3	
<u>-</u> 1	oc -50 CAVITY	o 50 / PROFIL	100 <sup>1</sup> E.			

PROJECTILE TYPE -REM.L.38SP

PROJECTILE VELOCITY (MPS) --325.53

PRO	JECTILE DE	FORMATION	İ	CAVITY HEASUR	EMENTS
	ETRATION TANCE (MM) O	AREA (MM+=2) A	0 1	0	17
	0 0	0	0 1	9 19	17 20
	Ö	0	0 1	28	22
	ŏ	ŏ	o i	38	22
	0	Ö	0 1	48	24
	0	0	0 1	58	26
			1	67	28
			I	77	29
	200		1	87	29
	300	T,		96	29
	`			106	32
			1	116	33
H	250 -			125 135	35 37
<u> </u>			t	145	38
ل <b>ن</b> ا				154	38
				364	36
	200  -		i	174	<b>4</b> Û
N D	·		1	184	42
I			1	193	45
	150 -		1	203	45
Œ	100			213	44
<u> </u>	Ì		1	555	43
<del> </del>			I	232	40
=	100 -	\ /		242 251	38 35
ENE	į		1	261	32
۵_	}	) )	ī	271	30
		\ /	i	280	27
	50  -	\	<u> </u>	290	21
			Ī	300	16
	1	\ /	I	310	14
	0		I	319	12
			I	329	12
		-50 0 50 VITY PROFII			

PROJECTILE DEFORMATION  PRESENTED CROSS-SECT I PENETRATION CAVITY DISTANCE (MM) AREA (MM**2) AREA (MM**2) I DISTANCE (MM) RADIUS (MM)  -4 64 65 I 0 18 19 19 69 69 62 64 I 19 25 19 19 19 19 19 19 19 19 19 19 19 19 19											
PENETRATION PRESENTED CROSS-SECT I PENETRATION CAVITY DISTANCE (MM) AREA (MM**2) AREA (MM**2) I DISTANCE (MM) RADIUS(MM)	PRO	)JECT II	LE DE	FORMATIO	N				TY MEASU	REMENTS	
27 67 67 1 9 19 69 62 64 1 19 25 109 83 258 1 38 29 154 125 238 1 38 29 215 56 150 1 47 30 241 70 101 1 57 31 1 66 33 1 76 30 1 85 32 300 1 95 32 1 104 29 1 114 28 1 123 28 1 123 28 1 123 28 1 123 28 1 123 28 1 123 28 1 123 28 1 123 28 1 123 28 1 123 28 1 123 28 1 123 28 1 123 28 1 123 28 1 123 28 1 123 28 1 123 28 1 123 28 1 123 32 1 123 32 1 124 32 1 125 32 1 126 32 1 1275 42 1 2275 42 1 226 43 1 2275 44 1 2275 44 1 2275 44 1 2275 44 1 2275 44 1 2275 44 1 2294 39 1 304 36 1		STANCE		AREA (M		AREA	(MM**2)	I PENE	ANCE (MM	RADIUS (M	M )
69 62 64 I 19 25 109 83 258 I 28 27 154 125 238 I 38 29 215 56 150 I 47 30 241 70 101 I 57 31											
109 83 258 I 26 27 154 125 238 I 38 29 215 66 150 I 47 30 241 70 101 I 57 31 I 66 33 I 76 30 I 85 32 I 95 32 I 104 29 I 114 26 I 123 28 I 133 26 I 142 52 I 142 52 I 152 32 I 161 37 I 171 31 I 180 32 I 190 33 I 190 33 I 190 33 I 190 33 I 190 33 I 190 33 I 190 33 I 190 33 I 190 33 I 123 36 I 209 35 I 218 37 I 228 40 I 237 41 I 247 42 I 256 44 I 266 43 I 266 43 I 275 42 I 285 44 I 285 44 I 294 39 I 304 36 I 314 33 I 294 39 I 304 36 I 314 33 I 294 39 I 304 36 I 314 33 I 294 39 I 304 36 I 314 33 I 294 39 I 304 36 I 314 33 I 323 30								_			
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1 66 33   1 76 30   30   1 85 32   1 95 32   1 104 29   1 114 28   1 123 28   1 142 32   1 142 32   1 161 32   1 161 32   1 171 31   180 32   1 190 33   1 190 33   1 190 33   1 190 33   1 190 36   1 209 35   1 218 37   1 223 40   1 237 41   1 223 40   1 237 41   1 247 42   1 256 44   1 266 43   1 275 42   1 283 40   1 294 39   1 304 36   1 314 33   1 323 30								-			
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I       199       36         I       209       35         I       218       37         I       223       40         I       237       41         I       247       42         I       256       44         I       266       43         I       294       39         I       304       36         I       304       36         I       314       33         I       323       30		200	⊢		)		$\dashv$	I 1	71	31	
I       199       36         I       209       35         I       218       37         I       223       40         I       237       41         I       247       42         I       256       44         I       266       43         I       294       39         I       304       36         I       304       36         I       314       33         I       323       30	$\boldsymbol{z}$			1	- 1			1 1	80	3 <b>2</b>	
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CAVITY PROFILE		- 1					100	I			
			CA	VITY	PROF	I L.E					

PROJECTILE TYPE -- REM. L. 38SP

PROJECTILE VELOCITY (MPS) --396.85

P	ROJEC	TILE DE	FORMATION		I CAVITY MEASUR	EMENTS
	ISTAN -	9 4 5 2 3	PRESENTED AREA (MM**2) 69 81 78 67 111 142 128	69 81 79 67 229 216 164	I PENETRATION I DISTANCE (MM) I 0 I 9 I 19 I 28 I 37 I 47 I 56 I 66	CAVITY RADIUS (MM) 26 27 32 36 38 39 41
	300				I 75 I 85 I· 94 I 104	39 40 40 37
ON DEPTH	250			-	I 113 I 123 I 132 I 142 I 151	3.6 3.4 3.6 3.7
	500	_		-	I 161 I 170 I 180 I 189	27 41 41 42
TRATI	150				I 199 I 200 I 218 I 227	42 41 42 43
PENE	100	_			I 237 I 246 I 256 I 265	44 44 41 41
	50			<u>-</u>	303	<b>40</b> 36 요한 8 <b>4</b> 요한
	O 	100 -5 CAV	o o s ITY PROFI	i 100 1		% <b>1</b>

PROJECTILE TYPE -- REM , MP , 30SP PROJECTILE VELOCITY (MPS) -- 335 .. 28

PROJECTILE	DEFORMATION		I CAVITY MEAS	SURE MENT S	
PENETRATIO Distance (		CROSS-SECT	I I PEMETRATION I DISTANCE (M		
<b>-7</b>	52		1 0	16	
20	48	48	I 9	16	
58	59	59	J 18	18	
98	59	60	J 28	19	
142	49	49	38	19	
207	54	205	47	20	
238	78	225	1 57	19	
			I 66	21	
			1 76	19	
			I 85	19	
300 L-			I 95	18	
	\ \	!	1 104	19	
į	}	· · · · · · · · · · · · · · · · · · ·	1 114	20	
T print		<u> </u>	I 124 I 133	19 21	
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ace F	\	-	1 172	18	
200	}		1 181	20	
5			1 191	18	
			1 200	17	
H 150 H	1	\ <del>-  </del>	. 200 I 210	19	
Œ			I 219	17	
F 8	}	1	529	18	
<del> </del>	(	1	I 23E	18	
N 100		1	I 248	17	
2		1	1 258	17	
<u>a.</u> .	)	1 :	7 267	16	
		1 :	277	17	
50 H		) —	286	17	
			I 296	17	
!		1	I 305	17	
!	1 1 1		1 315	16	
a L	<u></u>		325	16	
~- <b>1</b> O	3 –50 O		1		

ROUND NUMBER -- 872

PROJECTILE MASS (GM) --- 10.238

PROJECTILE TYPE -REM, NP, 38SP

PROJECTILE VELOCITY (MPS) -- 374.90

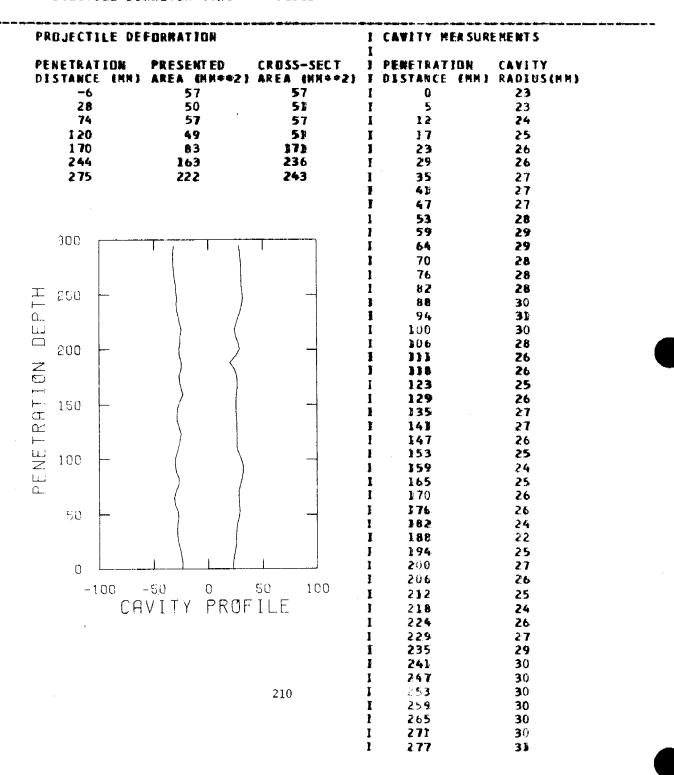
DISTANCE (MH) AREA (MH++2) AREA (MH++2) I DISTANCE (MM)  -3	CAVITY RADIUS (MM) 15 17 20 22 24 23 24 24 24 25 27
300 1 76 1 85 1 95 1 105 1 124 1 124 1 134 1 143 1 152 1 162 1 172 1 18h 1 19h	24 24 25
1 105 1 114 1 124 1 134 1 143 1 152 1 162 1 172 1 18h 1 19h	2.7
1 134 1 143 1 152 1 162 1 172 1 18h 1 19p	27 28
1 172 1 18k 1 191	27 30 30 30
	30 30 28
150 - 1 210	29 30 32 35
100 - 1 220 1 239 1 248	37 41 47
1 258 1 267 1 277	54 57 59
I 287 I 296 I 306 I 315	59 57 54 45

ROUND NUMBER -- 871

PROJECTILE MASS (GM) -- 10-238

PROJECTILE TYPE -- REM, MP, 38SP

PROJECTILE VELOCITY (MPS) -- 409.65



# ROUND NUMBER 871 CONTINUED

1	282	31
1	288	30
1	294	29
1	<b>3</b> 0 <b>0</b>	28
J	306	26
1	312	25

PROJECTILE TYPE --- REN,RN,38SP

PROJECTILE VELOCITY (MPS) -329.49

PROJECT	ILE DE	FORMATION		I CAVITY MEASURE	EMENTS	
PENETRA DISTANC 	E (RM)  -  -	PRESENTED AREA (MM++2) 54 62 69	AREA (MM##2) 57	I PENETRATION I DISTANCE CHUI I O I 6 I 11	CAVITY RADIUS (HM) 15 15 16	
95 131 198		68 <b>69</b> 134	68 69 207	I 17 I 23 I 30	17 1 <del>9</del> 20	
224	<b>+</b>	165	186	I 36 I 42 I 48	21 21 23	
300	<u> </u>	7.7		53 1 59 1 65	23 23 24	
<del></del>				1 71 1 77 1 83	23 22 21	
I 250 I				1 89 1 95 1 101	20 20 23	
200 200 2				1 107 I 113 I 119	24 23 21	
⊃  150 	-			I 125 I 13b I 137	22 23 22	
<u>K</u>				I 143 I 149 I 155	21 21 23	
100 11 12				I 161 I 167 I 173	24 23 21	
50	-		-	1 179 I 185 I 191	23 24 24	
0			1	1 197 1 203 1 204	24 27 28	
	C F - 100	-50 0 RVITY PRØI	FILE	I 215 I 221 I 227	28 29 29	
				I 233 I 239 I 245	30 30 30	
				1 251 1 257 1 263	31 31 31	
				I 269 I 275 I 281	30 30 29	

## ROUND NUMBER 870 CONTINUED

1	287	28
I	293	27
1	29 <del>9</del>	26
I	305	25
I	311	23
Ĭ	317	22

PROJECTILE TYPE --- REW.RN.38SP

## PROJECTILE VELOCITY (MPS) ---375.51

ROJECTIL	E DEFORMATIO	N	I CAVITY MEA	SUREHENTS	
PENETRATION STANCE		ED CROSS-SECT N+#2) AREA (MM*#2)	I I PENETRATIDI I DISTANCE E		
-7	65	66	1 . 0	14	
24	67	<b>372</b>	I 6	16	
67	79	. 231	1 32	18	
106	94	221	1 18	20	
153	118	154	I 23	22	
213	248	249	1 29	24	
239	230	243	I 35	25	
			1 42	24	
			1 48	26	
			I 54	27	
300 r		T	1 59	28	
	' }	'\\'	I 66	28	
			I 72	27	
4		,	1 77	26	
≖ გვც }	-   .	] -	i 83	25	
		i	1 89	24	
T.	1		1 95	25	
_	. }	}	1 101	26	
500 F	-	/ -	1 108	26	
<del>-</del>	\		1 113	25	
Z D	/		1 119	25	
<del></del> 7	5		I 125	28	
— 158 F	- (	\ -	1 131	29	
T 150	/		I 137	29	
Y	\	/	I 143	27	
	1		I 149	27	
100 H	\	\ -	1 155	26	
	)		I 161	24	
1.	(	(	I 167	28	
		1	1 173	28	
50	\	/ →	I 179	25	
•	(	(	I 185	26	
	,		I 191	30	
	, \	1 / 1	197	32	
ا ق			1 203	33	
- 1 3	nn –50	<b>3</b> 50 100	1 20%	33	
— <u>s</u> .			I 215	33	
	CHALLA	PROFILE	1 221	32	
			I 227	31	
			1 233	30	
			I 239	29	
			1 245	30	
			1 25%	30	
			1 257	30	
		214	1 263	30	
		- <u>-</u> ·	1 269	30	
			1 275	30	
			1 281	30	

## ROUND BUMBER 869 CONTINUES

1	281	29
1	293	28
1	300	28
1	305	26
I	311	25
1	317	24

PROJECTILE TYPE -- REN . RM. 385P

PROJECTILE VELOCITY (MPS) --- 305.88

PROJECTILE DE	FORKATION	Ī	CAVITY MEASUR	EKENTS	
PENETRATION DISTANCE (MM) 37 66 103 138 173 219	AREA (MN++2) AREA 60 20 59 20 133 2: 350 2: 252 2: 240 2:	S-SECT 1 ************************************	PERETRATION DISTANCE UNN)  6 11 18 23 29 36 47	CAVITY RADIUS(MM) 23 26 29 31 33 35 36 38	
300 PENETRATION DEPTH 500 CE	-50 0 50 RVITY PROFILE		59 65 72 77 89 95 107 113 119 125 131 143 143 143 143 143 143 143 143 143	38 37 37 38 37 38 36 37 38 41 42 44 45 44 45 44 45 44 45 46 47 47 48 48 48 48 48 48 48 48 48 48 48 48 48	
	216	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	25% 257 263 269 275 28% 28%	33 30 28 25 24 22 21	

# ROUND NUMBER 868 CONTINUED

1	293	19
I	299	18
1	305	3.8
1	313	17
I	317	17
1		

PROJECTILE TYPE --REM.SWC.38SP PROJECTILE VELOCITY (MPS) --329.79

こいにせのみてまかい	DDCCCNTCD		I I PENETRATIO	CAVITY
ENSTRATION Stance (mm)	PRESENTED AREA (MM**2)		I DISTANCE (MM)	
-3	60		1 0	20
24	56	192	7 9	t 9
<b>6</b> 5	72	. 215	I 19	20
<b>9</b> 8	82	<b>2</b> 26	7 28	21
138	121	<b>2</b> 26	I 38	2.3
195	165	238	ŧ 47	₹5
221	201	235	f 57	26
			I 65	23
			<b>7 7</b> 5	<b>?</b> 7
			t 85	2.2
300	7 / 1		1 95	24
	' / ' \	'	104	22
			1 114	21
			1 123	<b>2</b> ૄ
250 -	\ \		1 132	20
	\ /		I 142	2 3
			1 152	20
			I 161	20
200 -		1	1 171	22
		l l	180	22
150			[ 190 I 190	2 % 2 **
		į.	I 199 I 203	22 20
150			I 218	21
'	}		T 227	21
	/ 1	1	I 237	23
100	)	į	1 244	25
100	( )		T 256	21
	)	i	I 266	4.5
	/		1 275	<b>7</b> <sup>2</sup>
50 <b>-</b>	( )	<b>I</b>	1 284	2 1
30			1 294	2.3
	\ /		1 303	21.
		1	I 313	1.7
o L		1 1	, J.,	•

PROJECTILE TYPE --- REM, SWC, 385P

PROJECTILE WELDCITY (MPS) --349-30

PROJE	CTILE DE	FORMATION		I CAVITY HEASUR	EMENTS	
PENET DISTA	RATION NCE (MM) 0 0 0 0 0 0	PRESENTED AREA (MM**2) 0 0 0 0 0 0 0 0	CROSS-SECT AREA (MM**2) 0 0 0 0 0 0	PENETRATION  I DISTANCE (MM)  I 0  I 9  I 18  I 28  I 37  I 46  I 56  I 65	CAVITY RADIUS (HM) 30 27 29 33 35 35 36	
E PTH	50 -			T 75 1 84 1 93 1 103 1 112 1 122 1 131 1 141 1 150	37 38 39 40 40 40 38 37	
INETRATION D	0 –			I 160 I 169 I 178 I 188 I 197 I 207 I 216 I 225 I 235 I 244	30 28 27 24 22 19 15 13	
ш б.	0 -100	-50 0 VITY PROF	50 100 ILE	I 254 I 263 I 273	7 7 5	

PROJECTILE TYPE -- REM, SWC, 38SP

PROJECTILE VELOCITY (MPS) --416.36

PENETRATION PRESENTED CROSS-SECT I PENETRATION CAVITY DISTANCE (MM) AREA (MM**2) AREA (MM**2) I DISTANCE (MM) RADIUS (MM)  -3 70 70 I 0 29  28 117 117 I 9 26  70 123 133 I 18 32  103 126 126 I 28 37  135 149 152 I 37 41  178 126 130 I 46 45
196 146 149 I 55 48 I 65 50
74

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM) -2 19 58 90 117 140 162	PRESENTED C'AREA (MM**2) A'107 104 135 146 202 163 152	RÓSS-SECT REA (MM**2)	I PENETRATION I DISTANCE (MM) I 0 I 9 I 18 I 27 I 57 I 46 I 56 I 65		
300	, , , , , , , , , , , , , , , , , , ,	1	I 74 I 84 I 93 I 103	35 24 31 28	
I 250		-	1 112 I 121 I 130 I 140	26 24 21 18	
N 00 - 500 -		-	I 149 I 159 I 169	16 14 14	
		-	I 196 I 205	13 12 11 9	
150 L			224 I 233 I 243	3 6 5	
go -			I 252 I 262 I 271 I 280	3 4 4 4	
-100 C	-50 0 S	30 100 I L.E			

PROJECTILE TYPE --REM, WC, 38SP PROJECTILE VELOCITY (MPS) --293.22

PROJ	ECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
DIST	TRATION ANCE (MM) 1 25 69 106 137 163	PRESENTED AREA (MM**2) 107 109 94 111 86 95 119		F PENETRATION F DISTANCE (MM) F OF STANC	CAVITY RADIUS (MM) 27 28 34 37 40 42	·
30 H 25	00	T	· ·	1 66 1 76 1 85 1 95 1 104 1 114 1 123	38 37 36 35 33 32 32 35	
BTION DEPT				209	30 27 27 25 24 20 19 18	
PENETRI 2				266 276	16 14 14 12 11 10 3 7	
		50 0 9	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	304 314	6 6	

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 12 43	PRESENTED ) AREA (MM**2) 120 87	CROSS-SECT DARFA (MM**2) D	I I PENETRATION I DISTANCE (MM) I O I 9	
93	104	. 110	18	41
130	113	118	r 27	44.
162	<u>8</u> 7	8.5	I 37	45
182	99	99	46	49
200	37	87	I 55	£G
			f 6⋽	<b>4</b> 0
		!	74	4 E
300 (			83	47
	i l	! ]	93	<b>4</b> 3
	/ <u>`</u> `		102	<b>4</b> %
			111	40
<u> </u>		i	1 120	40 17
		1	I 130	
			139	34
			149	7.1
200 —	) \		158	2 ?
Z			1 167	23
			177	21 1º
<del></del>	/		I 196 I 195	14
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Cr	AVITY PROB	FILE		
1				

PROJECTILE TYPE -- REM, JSP, 41MAG

PROJECTILE VELOCITY (MPS) -- 296.57

PROJECTILE DE	FORMATION	****	I CAVITY MEASUR	EMENTS	*
PENETRATION DISTANCE (MM) 0 28 82 131 176 217 259	PRESENTED AREA (MM**2) 81 81 80 94 89 81 88	CROSS-SECT AREA (MM**2) 82 81 234 243 260	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 30 I 35 I 41 I 47	CAVITY RADIUS (MM) 15 17 20 23 26 26 26 26 26	
CAN DEPTH CAN DE			53 59 65 71 77 83 89 95 101 107 113 119 125 138 143 149 155 161 167 173 179 185 191 197 203 210 216 222 227 233 245 251 258 263 269	26 26 26 27 28 27 27 25 24 24 24 24 23 23 23 23 23 23 23 22 21 20 19 19 19 19 19 19 19 19 19 19 19 19 19	

## ROUND NUMBER - 890 CONTINUED

Ī	288	17
I	294	16
Ī	300	16
I	306	16
1	312	16
ĩ	318	15

PROJECTILE MASS (GM) --13.608

12

274

230

Ι

PROJECTILE TYPE --REM, JSP, 41MAG PROJECTILE VELOCITY (MPS) --347.78

PROJECTILE	DEFORMATION	I CAVITY MEASUR	EMENTS
	M) AREA (MM**2) AREA (MM**2)	I DISTANCE (MM)	RADIUS (MM)
5 36	83 8 <b>3</b> 82 85	I 0 I 5	18 20
94	133 • 289	i ii	. 23
144	125 278	I 17	27
189	108 240	I 23	28
229	149 277	I 29	3.0
267	77 273	Ī 35	32
_ + ·		I 41	<b>3</b> §
		1 47	<b>7</b> 4
		I 53	<b>34</b>
		I 59	3.5
300 <del></del> -		I 65	3.5
400	1. 11	I 71	35
		I 77	3.5
		£8 1	54
工 253 F-		1 89	34
<del></del>		1 95	<b>3</b> 3
		I 101	32
		1 107	33
200 F	}	1 113	34
Z		1 119 · I 125	35 34
<b>€</b> ⊃		I 131	33
		I 137	32
tr 150		1 143	31
ā:		1 149	29
+		I 155	26
₩ 100 F	) -	1 160	25
		1 166	2.5
112 C		I 172	26
		I 179°	27
730 <del> </del>	/ /	I 184	28
		I 190	Ź€
į		1 196	24
		I 202	24
<u> </u>		1 208	25
-1965	-50 0 50 L9C	I 214	<b>2</b> 5
	CAVITY PROFILE	I 220	25
	OFF THE TOTAL TOTA	1 226	24
ٺ		1 232	23
<del>-</del> -		I 238	22
		I 244	<b>2</b> 0
		I 250 I 256	20 19
		I 262	18
	226	I 268	17
		7 274	1.5

# ROUND NUMBER 888 CONTINUED

I	286	13
I	292	1.3
1	298	12
Ī	304	1.1
Ţ	310	11
Ī	316	10

PROJECTILE TYPE --REM, JSP, 41MAG PROJECTILE VELOCITY (MPS) --348.69

PENFTRATION DISTANCE (MM) AREA (MM**2) AREA (MM**2) I DISTANCE (MM) RADIUS(MM)  5
36
93 82 83 I 11 27 143 89 256 I 17 29 189 93 246 I 23 32 229 96 272 I 29 35 268 90 267 I 35 39 I 41 39 I 47 40 I 53 41 I 65 42 I 70 43 I 76 42 I 70 43 I 76 42 I 88 40 I 94 40 I 106 39 I 112 36 I 112 36 I 112 36 I 112 36 I 112 36 I 112 36 I 113 33 I 114 32 I 147 31 I 159 31 I 177 30
143 89 256 I 17 29 189 93 246 I 23 32 229 96 272 I 29 35 268 90 267 I 35 38  I 41 39 I 47 40 I 53 41 I 58 42 I 70 43 I 76 42 I 82 41 I 88 40 I 94 40 I 100 39 I 106 36 I 117 36 I 112 36 I 117 36 I 112 36 I 117 36 I 124 33 I 124 33 I 129 36 I 117 36 I 129 36 I 117 36 I 129 36 I 117 36 I 129 36 I 117 36 I 129 36 I 117 36 I 117 36 I 117 36 I 117 36 I 117 36 I 117 36 I 117 36 I 117 31 I 153 31 I 153 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 177 30
189 93 246 I 23 32 229 96 272 I 29 35 268 90 267 I 35 38  I 41 39 I 47 40 I 53 41 I 58 42 I 70 43 I 76 42 I 70 43 I 76 42 I 88 40 I 194 40 I 194 40 I 100 39 I 106 38 I 117 36 I 112 36 I 112 36 I 112 36 I 113 33 I 114 33 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 171 30
229 96 272 I 29 35 38
268 90 267 I 35 38 I 41 39 I 47 40 I 53 41 I 58 42 I 65 42 I 65 42 I 70 43 I 70 43 I 76 42 I 88 40 I 88 40 I 100 39 I 100 39 I 100 39 I 100 39 I 100 39 I 117 36 I 117 36 I 117 36 I 124 33 I 117 36 I 124 33 I 124 33 I 141 32 I 147 31 I 153 31 I 153 31 I 153 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 177 30
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1   53   41   1   58   42   1   65   42   1   65   42   1   70   43   1   76   42   1   88   40   1   88   40   1   100   39   1   106   38   1   117   36   1   117   36   1   124   33   33   1   124   33   34   1   141   32   1   141   32   1   141   32   1   159   31   1   159   31   1   159   31   1   159   31   1   159   31   1   159   31   1   159   31   1   159   31   1   159   31   1   159   31   1   159   31   1   177   30   1
1   58   42   1   65   42   1   70   43   1   76   42   1   88   40   41   88   40   1   100   39   1   106   38   1   117   36   1   117   36   1   124   33   1   124   33   1   124   33   1   124   33   1   141   32   1   141   32   1   141   32   1   153   31   144   31   31   31   31   31
T 250  T 250  T 70  43  T 76  42  T 70  43  T 76  42  T 82  41  T 88  40  T 94  40  T 100  39  T 106  38  T 117  36  T 124  33  T 124  33  T 124  33  T 124  33  T 124  33  T 124  33  T 124  33  T 129  36  T 129  36  T 129  36  T 147  31  T 153  T 153  T 153  T 153  T 159  T 159  T 159  T 177  30
T 260 - 1 70 43 I 76 42 I 82 41 I 88 40 I 94 40 I 100 39 I 116 38 I 117 36 I 117 36 I 124 33 I 124 33 I 129 36 I 141 32 I 141 32 I 147 31 I 153 31 I 153 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 159 31 I 177 30
I       76       42         I       82       41         I       88       40         I       94       40         I       100       39         I       106       3A         I       112       36         I       124       33         I       124       33         I       129       36         I       135       34         I       141       32         I       147       31         I       159       31         I       159       31         I       165       30         I       171       20         I       177       30
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T 100 39  I 106 38  I 112 36  I 117 36  I 124 33  I 129 36  I 135 34  I 141 32  I 147 31  I 153 31  I 159 31  I 159 31  I 165 30  I 171 30
I   106   38   36   112   36   117   36   117   36   124   33   124   33   124   33   124   33   124   33   124   33   124   33   124   33   124   33   124   33   124   33   124   33   124   33   34   124   32   124   33   31   32   124   33   31   32   33   33   33   34   34   35   35   35
I 112 36 I 117 36 I 124 33 I 129 36 I 135 34 I 141 32 I 147 31 I 159 31 I 159 31 I 165 30 I 171 20 I 177 30
I 124 33 I 129 36 I 135 34 I 141 32 I 147 31 I 159 31 I 159 31 I 165 30 I 171 20 I 177 36
I 124 33 I 129 36 I 135 34 I 141 32 I 147 31 I 153 31 I 159 31 I 165 30 I 171 20 I 177 36
I 135 34 I 141 32 I 147 31 I 159 31 I 165 30 I 171 20 I 177 36
1 135 1 141 32 1 147 31 1 153 31 1 159 31 1 165 30 1 171 20 1 177 36
1 141 32 31 153 31 159 31 159 31 165 30 171 20 177 30
I 153 31 I 159 31 I 165 30 I 171 20 30 I 177 30
I 159 31 I 165 30 I 171 20 I 177 30
1 165 30 1 171 20 1 177 30
50 I 171 20 I 177 30
1 177 30
_ \ / 103
/ I 189 27
1 195 26
3 L 200 27
-193 -50 0 50 180 <b>1 20</b> 6 <b>2</b> 8
CAVITY PROFILE 1 212 27
T 218 26
I 224 26
I 230 25
I 236 23
I 242 23
I 247 22
I 254 22
228 I 260 22
I 265 22
I 271 22 I 277 21
f <b>C</b> 11 ('T

## ROUND NUMBER 889 CONTINUED

I	283	20
I	289	19
ĭ	295	19
Ţ	301	1.8
I	307	1.8
Ţ	313	17

PROJECTILE MASS (GM) --13.608

PROJECTILE TYPE --REM, JSP, 41MAG PROJECTILE VELOCITY (MPS) --368.81

PROJECTILE DEFORMATION	Ī	CAVITY MEASUR	EMENTS	
DISTANCE (MM) AREA (MM**2) AREA -3 86 21 94 60 124 2 95 143 2 120 147 1 146 196 2	S-SECT I (MM**2) I 86 I 94 I 206 I 21 I 86 I 244 I 148 I	0 6 12 18 24 30 36 42 48	28 31 34 37 40 42 44 45	
300	100 1	55 61 66 72 79 85 91 97 103 109 115 121 127 133 140 146 152 158 164 170 176 182 188 194 200 207 213 219 225 231 249 255 261 268 274	44444444444444444444444444444444444444	

# ROUND NUMBER 887 CONTINUED

I	292	23
ſ	298	2.2
Ī	304	20
Ī	310	19
. <b>I</b>	316	17
1	322	16

PROJECTILE TYPE -- REM, JSP, 41MAG

PROJECTILE VELOCITY (MPS) --389.23

PROJECTILE D	EFORMATION	~~~~	I CAVITY MEASUR	EMENTS	
PENETRATION Distance (MM)	PRESENTED ) AREA (MM**2) 167	AREA (MM**2)	I PENETRATION I DISTANCE (MM) I O	CAVITY RADIUS (MM) 37	
25	225		<u> 6</u>	38	
64 99	221 213	·	I 11 I 18	<b>41</b> 43	
136	214		I 10 I 24	+⇒ 46	
182	132		I 30	49	
202	160		i 36	51	
			I 42	53	
		;	I 43	54	
		1	I 54	54	
		j	60	54	
300 [	T		66	<b>5</b> 5	
;	. ]	'	I 72 I 78	56 5-	
	/		T 78 I 84	<b>5</b> 5 54	
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<i>Γ</i> 3			109	56	_
e'Ut' 🔭 ·		\ 1	115	56	4
8		1		56	
₹D m-				56	
F 153	<b>)</b>			56	
U.				54	
EC.	j			53 52	
<del>L</del>	1			53 53	
<u>1</u> 2 100	\	/ i		53 53	
Li	)		175	51	
<i>i</i>		)	_	48	
e 8	/	/ ! 1	187	46	
7.5 <del> </del>		/ - <del>-</del>	194	45	
	\	/ <u>!</u>		44	
		/ ! !		42	
g 1	1 1 /	<u>_i</u> i		42 40	
-100	-50 . 0	ნც დე <b>I</b>		38 38	
		1 of 850 1 to 1 to 1 to 1 to 1 to 1 to 1 to 1 t	230	3 <b>6</b>	
Ų.Ħ	VITY PROF	il.t.		34	
		Ī	242	33	
		I	248	31	
		I		2.8	
		1		26	
		I		25	
		232	273	23	•
		<sup>232</sup> [		<b>21</b> 20	
		ı I		19	
		^	# / L	• /	_

I	297	19
I	303	19
İ	309	l é
I	315	1.8
I	321	17
7		

PROJECTILE TYPE --REM, L, 41MAG

PROJECTILE VELOCITY (MPS) --332.23

PROJECTILE DEF	FORMATION		I CAVITY MEASUR	EMENTS	
PENATRATION DISTANCE (MM) -10 17 54 87 127 179 206	PRESENTED AREA (MM**2) 64 115 91 107 90 87 78	CROSS+SECT AREA (MM**2) 66 239 221 210 130 88 195	I PENETRATION I DISTANCE (MM) I 0 I 9 I 19 I 28 I 37 I 47 I 56	20 20 22 27 70 31 32	
PENETRATION DEPTH 0052 0052 0052 0052 0052 0052 0052 005	U O 5	0 100	I 66 I 76 I 85 I 95 I 104 I 114 I 123 I 133 I 142 I 152 I 161 I 171 I 130 I 190 I 199 I 209 I 218 I 228 I 237 I 247 I 257 I 265 I 276 I 285 I 294 I 304 I 314 I 323 I	31 29 29 28 27 29 25 25 26 24 27 26 20 19 19 20 16 16 16 16 16 14 13 14	

PROJE	CTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
	RATION NCE (MM)		CROSS-SECT AREA (MM**2)	I I PENETRATION I DISTANCE (MM)	
	<del>-</del> 6 23	81 75	31 76	I () I 9	2 년 2 3
	63	75 10∂ .	223	<u>.</u>	2 <i>2</i> 2 <i>8</i>
	93	101	259	I 15 I 28	-
	. <b>3</b> \$	99	265	r 20 r 37	3.9 3.8
	94	149	260	T 47	34
	20	184	230 230	I 56	? <b>7</b>
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				1 75 I 84	
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	-100 -	·50 0	50 1 <b>0</b> 0 <sup>1</sup>		
	CAY	VITY PROF	Î I E		

PROJECTILE TYPE -- REM, L, 41MAG

PROJECTILE VELOCITY (MPS) --384.66

PR	OJECTILE	DEFORMATION		I CAVITY MEASU	REMENTS	*
	NETRATION STANCE (N -5 32	N PRESENTED MM) AREA (MM**2) 128 160	133	I PENETRATION I DISTANCE (MM I 0 I 9	30	
	53	173 .	160 175	T 18	30 35	
	94	157	318	1 28	41	
	138	152	325	I 37	46	
	169	133	<b>4</b> ذ3	I 47	47	
	195	136	346	I 57	4.9	
				I 66	49	
				I 75	43	
				<b>I</b> 85	47	
	300			I 94	46	
		' / ' \	1	I 104	47	
		1		1 113	<b>4</b> &	
<del></del>				I 123	49	
工	250 -		7	1 132	47	
م ٰ	ļ			I 141	43	
DE		/		I 151	39	
	200		)	I 161	36	
	200	/		1 170 1 179	35	4
NO		}		I 179 I 189	32	
1	l			I 198	29 26	
<b>—</b>	150			I 209	26 27	
RAT	100	)		I 217	2 5 2 5	
$\alpha$			)	1 227	20 20	
⊢-			/	1 236	21	
N N	100 -			I 246	19	
للا				I 255	18	
ت			1	I 265	18	
		)		I 274	17	
	50 <b>—</b>			I 284	17	
		{		I 293	15	
	Í		/	I 302	15	
			/	I 312	1 5	
				Î 321	14	
	-100	-50 O		Ī		
			FILE			
			1 4.6	•		

PROJECTILE TYPE --REM, L, 41MAG PROJECTILE VELOCITY (MPS) --435, 56

PROJECTILE DEF	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) -3 27 60 96 127 164 178	PRESENTED AREA (MM**2) 117 206 207 209 216 237 224	207 208 208 211 216	I PENETRATION I DISTANCE (MM) I 0 I 9 I 19 I 28 I 37 I 47 I 56 I 65 I 79	30 37 48 50 61 65 68 71 71
	-50 O	50 100	I 85 I 94 I 103 I 113 I 122 I 132 I 141 I 150 I 160 I 169 I 179 I 188 I 198 I 207 I 216 I 226 I 235 I 245 I 263 I 273 I 282 I 292	71 69 66 66 66 67 68 68 68 68 68 68 68 68 68 68 68 68 68

PROJECTILE TYPE -- REM, MC, 45ACP PROJECTILE VELOCITY (MPS) -- 379.17

PROJECTILE DIAMETER (CM) -- 11.430

PROJECTIL	E DEFORMATION		I CAVITY MEASUR	EMENTS
PENSTRATI DISTANÇE	(MM) AREA (MM**2	CROSS-SECT ) AREA (MM**2)	I PENETRATION I DISTANCE (MM)	
-5 27	102 89	102 229	I 0 .	24 24
70	100	. 187	I 11	25
112	107	234	1 17	26
158	117	153	1 24	28
225	103	163	I 30	29
252	125	138	1 35	31
			I 42	31
			1 48	3.2
T) 45 45			I 54	3.2
300 <sub>(*</sub>	17	,	I 60	3 <b>4</b>
!	/		I 66	33
			I 72	<b>3</b> કે
5 060 F	_		78	35
E 200	(		1 84	34
			I 90	33
Luf }			I 96	33
aus 📙	_ (		I 102	32
7	)	1	I 108	35
5		/	I 114	35
_	1		I 120	<b>3</b> 3
150 H	. \	_	I 126	32
			I 132	31
	)	\	I 138	30
	l	)	I 144	32
= 100 <u> </u>	· )	( -	I 150	<b>3</b> 3
_	)		I 156 I 162	35
	<b>\</b>			33
	(		I 168 I 174	3 <b>4</b> 35
50 H	] /		I 180 `	35 35
į	\		I 186	35
	1 /		I 192	34
j L	1	\	1 198	35
	- mark - kan a saadan a mana dan kan kan kan dan dan dan dan dan dan dan dan dan d	<u></u>	I 204	37
- t (Di	7 -50 0	50 160	I 210	39
	CAVITY PROF	- 1 L.E.	I 216	42
	2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1 222	43
			1 228	43
			I 234	46
			1 240	48
			I 246	49
			I 252	49
			I 258	49
		238	I 264	4 P
		450	I 270	47
			I 276	45

282

43

1	288	41
1	294	39
I	<b>30</b> 0	37
Ī	306	3.5
ĭ	312	34
1	318	74

PROJECTILE TYPE --REM, WC, 45ACP PROJECTILE VELOCITY (MPS) --374.90

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM) -8 21 62	PRESENTED AREA (MM**2) 112 102 90	AREA (MM**2) 113 133	I PENETRATION I DISTANCE (MM) I O I 6 I 12	CAVITY RADIUS (MM) 18 19 21	
99 140 195 219	. 109 83 175 163	143 175 177 174	I 13 I 24 I 29 I 36	23 24 25 26	
: : : : : : : : : : : : : : : : : : :	T	T	I 48 I 53 I 60 I 66	27 30 32 30 34	
E 250 H		-	I 72 I 78 I 83 I 89 I 96	36 27 27 57 37	
2 ACC - 2 ACC			I 101 I 107 I 119 I 125 I 131 I 137	27 ରୁଷ ଅ <b>ଟ</b> ଅନ ଜୁନ ଜୁନ ଜୁନ	
2 100 -			I 143 I 149 I 156 I 161 I 167	68 88 86 84 37	
30			I 173 I 179 . I 185 I 191 I 197	32 31 29 30 30	
(4)3 CAV	SI E 5 JTY PROFI	2 100 5 L.E. :	203 1 209 215 221 1 227 1 234	30 31 31 32 31 30	
		) ] ]	240 245 251 257	29 28 27 26	
		240	269	26 26 26	

ſ	294	26
I	299	26
I	305	25
Ĭ	311	25
Ī	317	2.5
Ī	323	25
Ī	329	25
I	335	2.5
I	341	25

### PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -240.19

PROJECTILE DEFORMATION I				
	PRESENTED AREA (MM**2)	CROSS-SECT AREA (MM**2)	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM)
6 26 50 72 96	59 60 66 67 62	60 66 68 62	I 0 I 5 I 11 I 17 I 23 I 29 I 35 I 41 I 47	9 10 15 18 21 22 22 22
300	<del></del>	T	I 53 I 59 I 65	21 21 21
TE 250		-	I 71 I 77 I 82 I 88	20 18 17 16
200 Z		4	94 I 100 I 106 I 112	16 15 14 13
H 150			118 1 124 1 130 1 136	12 10 10
H 100 - H			1 142 1 147 1 154 1 159	8 8 7 8
50			165 171 177 183	8 7 8
0	-50 0		I 189 I 195 I 201	8 8 8 7
	-50 0 VITY PRØF	ILE	207 213 219 225	7 7 7 6
			[ 236 [ 242 [ 248	6 5 5 5 5 3 3
			I 254 I 260 I 263	5 3 3
		242	C C	ő

PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -285.66

PROJECTIL	DEFORMATIO	N		I CAVITY MEASUR	REMENTS
PENETRATIC CISTANCE (11 34 62 89 115	DN PRESENT (MM) AREA (M 65 81 85 33 85			I PENETRATION I DISTANCE (MM) I 0 I 6 I 12 I 18 I 24 I 30 I 36 I 43 I 49	CAVITY ) RADIUS (MM) 13 16 20 22 24 27 28 29 29
306	· · · · · · · /	T		I 55 I 61 I 67 I 74	29 29 28 28
II 250				I 80 I 86 I 92 I 98	27 26 25 24
00 Site			-	I 104 I 111 I 117 I 123	22 21 21 21
150				I 129 I 136 I 142 I 148	20 19 17 18
N 100	-			I 154 I 160 I 166 I 172	18 17 17 16
50	-		-	I 179 I 185 I 191 I 197	16 16 14 13
o   -10	o -50 CAVITY	0 50 PRMEII	100 F	I 204 I 210 I 216 I 222	13 11 10 10
		INOLIE		I 228 I 234 I 240 I 247 I 253	10 9 9 9 8
				I 259 I 266 I 271 I 278	9 8 7 6
			243	I 284 I 290	6 5

#### ROUND NUMBER 174 CONTINUED

1	296	5
I	303	5
1	309	5
I	311	4
I	315	2
1	מ	0

### PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -329.16

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION CISTANCE (MM) 15 41 73 103 134	PRESENTED AREA (MM**2) 74 76 80 66 74	AREA (MM**2) 74 76 80 66 74	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35 I 41 I 47	CAVITY RADIUS (MM) 16 19 22 25 26 28 29 29
3ne		T	I 52 I 58 I 64 I 70	29 29 29 29
IE 250 -		-	76 I 81 I 87 I 93	29 28 26 26
200		-	I 99 I 105 I 111 I 117	26 26 25 23
150 - 150 - 150 - 150		_	1 122 I 128 I 134 I 140	24 24 22 21
100 -		_	I 146 I 151 I 157	20 18 18
50		_	I 163 I 169 I 175 I 181 I 187	16 16 16 16
0 -100	-50 o	50 100	I 187 I 192 I 198 I 204 I 210	16 14 13 12 12
C F	AVITY PRØF	] 1 1	I 216 I 221 I 228 I 233 I 239	12 11 11 10 9
		] 1	245 1 251 1 257 1 263	9 9 8 7
		2 <b>4</b> 5		6 5

## ROUND NUMBER 17.3 CONTINUED

I	280	5
I	286	4
I	292	4
I	298	3
I	304	3
Ī	309	3
Ī	315	3
I	319	3
I	0	0

PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -342.09

PROJECTILE DEFORMATION			I CAVITY MEASUR	EMENTS
PENETRATION CISTANCE (MM) 12 40 73 104 136			I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35 I 41	CAVITY RADIUS (MM) 17 19 21 25 26 27 27
	-se c VITY PROF	50 100 ILE	I 47 I 52 I 58 I 64 I 70 I 76 I 82 I 88 I 94 I 100 I 105 I 111 I 117 I 123 I 129 I 134 I 140 I 146 I 152 I 158 I 164 I 170 I 175 I 181 I 187 I 193 I 199 I 205 I 211 I 217 I 223 I 228 I 234 I 246 I 252 I 258 I 264	28 29 29 27 26 25 26 25 24 22 20 19 17 17 16 14 13 11 11 11 10 10 8 7 7 7 7 7
			I 270 I 275	8 8

#### ROUND NUMBER 194 CONTINUED

Ī	281	7
I	287	7
İ	293	7
I	299	7
1	305	6
I	310	6
1	316	6
I	322	6
1	324	6

PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELCCITY (MPS) -391.77

PRO	JECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
			CR CSS-SECT AREA (MM**2) 101 182 212 210	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23	
	380 -	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	I 29 I 34 I 40 I 46 I 52 I 58 I 64 I 69	40 43 44 46 47 49 49
HT 30 MOI	250 <b>-</b> 200 <b>-</b>		-	T 75 T 81 T 87 T 93 T 99 T 105 T 110	49 49 48 45 43 41 39
A HARA	100			I 116 I 122 I 127 I 134 I 139 I 145 I 146 I 151	37 34 31 28 26 23 23
		-50 0 VITY PROF	50 100	1 157 1 163 1 168 1 174 1 180 1 186 1 192 1 193	17 14 12 10 8 7 7
	C I	. • 1 ( ) 1 (\(\O\))	]	I 201 I 204 I 205 I 206 I 0	6 6 4 0

ROUND NUMBER - 195

PROJECTILE MASS (GM) - 7.128

PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -393.29

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION CISTANCE (MM) 14 43 74 99 123	PRESENTED AREA (MM**2) 79 125 200 143 159	CRCSS-SECT AREA (MM**2) 79 127 200 175 172	I PENETRATION I DISTANCE (MM) I 0 I 6 I 12 I 18 I 24 I 29 I 36	CAVITY RADIUS (MM) 23 25 29 32 34 37
388 CAV	- · · · · · · · · · · · · · · · · · · ·	0 100	1 41 1 47 1 53 1 59 1 65 1 72 1 78 1 83 1 89 1 95 1 101 1 107 1 113 1 119 1 126 1 131 1 137 1 144 1 150 1 156 1 156 1 161 1 168 1 174 1 179 1 185 1 197 2 197 2 103 2 107 2 107 2 108 2 109 3 109 4 109 4 109 6 109	42 435 455 455 443 443 443 443 443 443 443

PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (PPS) -439.83

PROJECTILE DEFORMATION I					
	ETRATION FANCE (MM) 15 45 77 101 122	PRESENTED AREA (MM**2) 102 217 249 249 228	CRCSS-SECT AREA (MM**2) 102 217 249	I PENETRATION I DISTANCE (MM) I O I 6 I 12 I 17 I 23 I 29	30 34 38 41 44
3	00	Т	<u></u>	I 35 I 41 I 47 I 53 I 59 I 65	48 49 50 51 51
DEPT	50 <b>-</b>			I 71 I 77 I 83 I 89 I 95 I 100	51 50 49 47 45 42
ENETRATION	50			I 107 I 112 I 118 I 124 I 130 I 136	40 37 34 30 28 25
۵.	50 <b>-</b>			172	23 20 17 13 10 8 7
		50 0 E	50 100	1 184 1 186 1 188 1 0	7 7 5 0

PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -229.52

PROJECTILE DE	FORMATION	I CAVITY MEASUR	EMENTS	
PENETRATION CISTANCE (MM) 10 29 53 77 102	PRESENTED AREA (MM**2) 55 60 59 63 62	CRCSS-SECT AREA (MM**2) 55 61 59 63 62	I PENETRATION I DISTANCE (MM) I 0 I 6 I 11 I 18 I 23 I 29 I 35 I 41 I 47 I 53	9 10 13 15 17 18 20 20
300 H1 250 H2 200 NB1 LBAL 3NB 200 LB	-50 CONTY PROF	50 100	207 213 219 225 231 236 242 248 254 260	18 18 17 17 17 16 16 16 15 13 13 12 11 11 10 10 10 10 10 10 10 10 10 10 10
		252	<b>27</b> 2	6 5

### ROUNC NUMBER 179 CONTINUED

I	284	6
I	290	6
I	296	4
I	300	3
1	301	1
1	C	0

PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -274.10

PROJE	CTILE DE	FORMATION	I CAVITY MEASUREMENTS		
CISTA	RATION NCE (MM) 11 34 61 86 15	PRESENTED AREA (MM**2) 71 80 68 73 70	CRGSS-SECT AREA (MM**2) 71 81 68 73 75	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35 I 41 I 47	12 14 18 20 22 24 25 26 27
308 <u>I</u> 250				I 52 I 58 I 64 I 70 I 76 I 82 I 88 I 94 I 100	27 27 26 25 25 25 25 24 22
O 2000				I 105 I 111 I 117 I 123 I 129 I 135 I 140 I 146	20 20 19 19 18 17 17
五 日 58 0				I 152 I 158 I 164 I 170 I 176 I 182 I 188 I 193 I 199	16 16 15 15 15 14 13
		su o :	50 100 ILE 254	1 205 I 211 I 217 I 223 I 229 I 234 I 240 I 246 I 252 I 258 I 264 I 270 I 276	13 13 13 12 12 12 11 11 10 9 8 8

# ROUND NUMBER 178 CONTINUED

I	282	7
1	287	7
I	293	6
Ī	299	6
I	305	5
1	311	5
I	317	4
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PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -329.51

PROJECT	ILE DE	FORMATION		I CAVITY MEASUR	EMENTS
	CE (MM)	PRESENTED AREA (MM**2)	AREA (MM**2)	I PENETRATION I DISTANCE (MM)	
13		66	66	I 0	15
46		66	66	1 6	18
74		58	58	1 11	21
196		76	77	I 17	24
140	j	74	74	1 23	26
				[ 29	28
				I 35	29
				I 41	29
				1 47	29
600				I 53	28
300				I 59	27
	ļ	1		I 65	29
				1 71	30
II 950		( )	i	I 77	29
II 250 ►			į.	I 83	27
Δ			1	I 89	28
لشا			i	I 95	28
ED 200		) )	Į.	I 101	28
		( )	1	I 107	26
Z D		)	i	I 113	27
		(	}	I 119	25
— — 150		/	i	I 125	25
<u>a.                                    </u>		)	1	I 131	23
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<del></del>				I 142	24
₩ 100	_	\		I 148	23
7 100				I 155	22
ليا		1	į.	1 161	21
Ľi.		,		I 166	21
SO				1 172	20
130	-			I 178	18
		\		1 184	18
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		· · · · · · · · · · · · · · · · · · ·		I 203	16
		-80 0		I 208	16
	CA	VITY PROF	1 1 1	I 214	16
				I 220	15
				1 226	14
				1 232	14
				I 238	14
				1 244	13
				1 250	12
				I 256	12
				I 262	11
			25.4	1 268	11
				1 274	10
				I 279	16

# ROUND NUMBER 177 CONTINUED

I	286	9
I	292	9
I	298	8
I	304	7
I	310	7
I	315	7
I	322	7
I	326	6
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PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -342.47

+- PRO.	JEGT IL	 E DE	FORMATION	i			I CAVITY MEA	SUREMENTS
PEN	ETRATI	ION	PRESENTI AREA (MI 63 64 58 51 61	5D	CROSS-5 AREA (N 64 64 56 51 61	SECT 1M**2)	I PENETRATIO I DISTANCE ( I 0 5 1 11 17 17 23 1 29	
	300			T	1	7	I 41 I 47 I 53 I 59 I 65 I 71	29 30 30 28 29 29
1 (1 (1)	250						I 77 I 83 I 89 I 95	27 27 26 25
10N D	200					-	I 101 I 107 I 113 I 119 I 125	24 24 23 22 22
TRATE	150	-					I 131 I 137 I 143 I 149	22 21 20 20
P.ENE	100 50		}				1 155 I 161 I 167 I 173 I 179	19 18 18 19 15
	0				1		I 184 I 190 I 196 I 202	15 15 17 16
		100 CI	-50 AVITY	o PROI	50 FILE		I 208 I 214 I 220 I 226 I 232	14 13 13 11 11
					258	1	I 238 I 244 I 250 I 256 I 262 I 268 I 274 I 280	11 10 11 10 10 9 8 8

# RUUND NUMBER 196 CONTINUED

1	286		7
I	292		7
1	298		6
I	304		6
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1	316		6
I	322		6
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PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -291.95

P	ROJECTILE DE	FORMATION	I CAVITY MEASUREMENTS		
		AREA (MM**2) ARE	DSS-SECT	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM)
	12	76		1 0	14
	36	85		I 5	16
	67	88		I 11	19
	96	91		I 17	22
	126	87		I 23	24
				I 29	27
				I 35	28
				I 41	29
				I 46	29
				I 52	30
	300	T	7	I 58	30
		' ' ' ' ' '		I 64	30
	}		<b>!</b>	I 70	29
		( )	1	I 76	29
工 	250	}	1	I 81	<b>2</b> 8
<u>ū</u> _		\		I 87	25
ندا		/ \		I 93	25
	206	· } }	!	I <b>9</b> 9	25
	200	1		105	24
ND		1	1	111	24
$\sim$		1		117	23
<b></b>	251)	/ \	1	123	23
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<b>}</b> -		(	<u> </u>	140	19
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7	100	<b>(</b>	1	152	18
تنا					16
$\alpha$				164	16
	ระ 📙	1		170	16
	100	\	7	175	16
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				187	15
				193	14
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	CAV	ITY PROFILE	_		13
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			260 I	209 275	10
				211	10

PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -387.29

PROJECTILE DE	FORMATION	I CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM) 16 44 76 102 126	PRESENTED AREA (MM**2) 91 148 177 163 132	AREA (MM**2) 91 156 182 227 211	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35 I 40	CAVITY RADIUS (MM) 24 26 29 33 36 38 40 41
	-50 O VITY PROF	50 100 ILE	1 46 1 52 1 58 1 64 1 70 1 76 1 81 1 87 1 93 1 105 1 111 1 117 1 122 1 128 1 140 1 146 1 151 1 157 1 163 1 169 1 175 1 181 1 187 1 192 1 198 1 204 1 210 1 221 1 225 1 0 0	43 45 46 46 46 45 44 44 42 49 37 30 82 27 22 21 19 11 11 11 11 11 11 11 11 11 11 11 11

PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -414.13

PROJECTILE DE	FORMATION	I CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM) 17 45 77 102 126	PRESENTED AREA (MM**2) 71 192 207 162 187	CRCSS-SECT AREA (MM**2) 71 192 209 190 203	I I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29	CAVITY RADIUS (MM) 27 30 34 38 42 44
300 T 250			( 35 l 41 I 47 I 53 I 59 I 65 I 71	46 48 49 49 49 50
10N DEPTH		_	I 77 I 83 I 89 I 94 I 100 I 106 I 112	50 50 49 46 44 42 39
PENETRATION 100			I 119 I 124 I 130 I 136 I 142 I 148 I 154	37 34 33 30 28 25 23
	<u> </u>	50 100	I 160 I 166 I 172 I 178 I 184 I 190 I 196 I 201	20 17 14 11 9 8 7
AJ L	VITY PROF	ILE	1 208 I 211 I 0	5 5 5 0 0

PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -152.02

PROJECTILE DEFORMATION	I CAVITY MEASUREMENTS		
PENETRATION PRESENTE CISTANCE (MM) AREA (MM 4 52 22 57 36 54 53 59 72 54	1**2) AREA (MM**2) 52 57 54 59	I PENETRATION I DISTANCE (MM) I 0 I 5 I 12 I 17 I 24	7 8 7 8
		I 29 I 35 I 41 I 48 I 53 I 59 I 65	8 7 6 6 5 5 5
300		I 71 I 77 I 83 I 89 I 95	5 5 5 5
SOC - THE SEC -		I 101 I 107 I 113 I 119 I 125	6 6 7 7 6
150 – 02 02		I 131 I 137 I 143 I 149 I 155	6 6 6 7
50 -		I 161 I 167 I 173 I 179 I 185 I 191	7 8 7 7 6 6
-100 -50 0 CAVITY F	50 100	I 197 I 203 I 209 I 215 I 220 I 227	6 7 6 6 5
		1 233 I 238 I 241 I 244 I 246 I 0	5 5 4 3 1

PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -245.21

PR	OJEGT	ILE DE	FORMATION	I CAVITY MEASUR	EMENTS	
	NETRAI STANCI 10	FION E (MM)	PRESENTED AREA (MM**2) 54	CRCSS-SECT AREA (MM**2) 55	I PENETRATION I DISTANCE (MM) I O	CAVITY RADIUS (MM) 9
	31 56		71 67	71 67	I 5	10
	81		74	74	I 11 I 17	13 17
	105		70	70	I 23	19
					I 29	20
					I 35	21
					I 41 I 47	22 23
					I 53	22
	300				I 59	22
			1 11		I 65	22
					I 71	21
I	250	L	( )		I 76 I 82	21 21
Ξ. —	2.00	Γ		7	I 88	21
ے۔ اختا					I 94	21
					1 100	21
	200		/ \	-	I 106	20
ØN			1		I 112 I 118	17 16
·			)		I 124	16
<u> </u>	150	-	/	4	I 129	15
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Ы Z	100				I 147 I 153	12 12
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	อบ	ſ	( )		I 177 I 183	10 0
			\ /	Ì	I 189	9 9
				1	I 195	8
	C	L	<del></del>		I 201	8
	<u> </u>		-50 0	100	I 207 I 213	7
		CA	VITY PROF	1 7-	I 213 I 219	6 6
					1 224	•
					I 230	5
					I 236	5
					I 242	5 5 5 4
					T 248 I 254	4
					I 260	4
					1 266	4
					I 272	4
					1 278	3

# ROUND NUMBER 186 CONTINUED

I	284	3
I	289	3
I	295	3
I	301	3
1	307	3
I	313	3
I	319	3
I	324	3
T	0	6

# ROUNC NUMBER 185 CONTINUED

I	281	10
1	287	10
I	293	9
ľ	299	9
I	305	9
I	310	8
1	316	8
I	319	8
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# PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -341.32

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
15 42 77 119	AREA (MM**2) 58 57 58 60	CRUSS-SECT AREA (MM**2) 58 57 58 61	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17	18 19 23 26
<b>143</b> 300 <sub>[</sub>	63		I 23 I 29 I 35 I 41 I 47 I 53	28 29 30 30 31
王 250 <b>-</b> A. E		-	I 59 I 65 I 71 I 77 I 83 I 89 I 95	31 31 30 28 28 28 27
RATION D = 000 = 000			I 101 I 106 I 113 I 118 I 125 I 130	26 26 25 24 22 22
BENET 100 -		}	I 136 I 142 I 148 I 154 I 160 I 166	21 21 20 18 16 16
0 -100	-50 C		I 172 I 178 I 184 I 190 I 196 I 202 I 208	16 15 16 15 15 14
	AVITY PRO		I 214 I 220 I 226 I 231 I 237 I 244 I 249 I 255 I 261 I 267	13 12 12 11 11 10 10 10
		267	I 273 I 279	9 8

#### ROUNE NUMBER 198 CONTINUED

I	285	8
ĭ	291	8
ſ	297	7
I	303	7
ſ	309	7
I	315	7
I	318	7
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I	O	0

PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -349.54

PROJECTILE DEFORMATION			I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 15 43 76 104 131		AREA (MM**2) 98 112 135 196 158	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35	20 23 26 29 32 34 35
300			I 41 I 47 I 53 I 59 I 65 I 70 I 76 I 82 I 88 I 94 I 100 I 106 I 112 I 118	39 41 43 44 43 44 44 44 44 44 44
150   C			I 124 I 130 I 136 I 141 I 147 I 153 I 159 I 165 I 171 I 177 I 183 I 189	39 36 34 32 31 30 29 28 25 23 22 20
	se a g /ITY PROFI	io 100 ¦	201 207 212 219 225 230 236 242 248 254 269 266 272	18 16 15 13 12 11 11 10 10 10 10 9 8

#### ROUND NUMBER 184 CONTINUED

ĺ	283	8
I	290	8
I	296	7
I	301	6
[	307	6
Į.	313	5
ľ	316	5
Í	C	0
ľ	0	ō

PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -406.94

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION CISTANCE (MM) 15 44	AREA (MM**2) 94	CROSS-SECT AREA (MM**2) 94	I I PENETRATION I DISTANCE (MM) I O	27
79	245 237		[ 5 [ 11	31 35
159	222		1 17	40
136	202	* ' <del>=</del>	23	44
			I 29 I 35	48
			[ 41	50 52
77 ( N ) N			47	53
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		i	253	6
		1	258	5
		271	261	4
		2/1 [		<b>3</b> ც

PROJECTILE TYPE -SIERRA, JSP PROJECTILE VELOCITY (MPS) -190.98

PROJECTILE DE	FORMATION	*****	I CAVITY MEASUR	EMENTS
	AREA (MM**2) AR	OSS-SECT EA (MM**2)	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM)
7 24	59 61	59 61	I 0 I 5	9 8
45	6C	61	เ๋ เเ๋	. 8
67	57	57	I 17	12
89	54	54	I 23	13
			I 29	13
			I 35	12
			I 40 .	12
			I 46	11
300			I 52	10
300			I 58	10
	$\cup$		I 64	9
	·		I 70	9
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		7	I 81 I 88	8
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		1	252	5
		Į	257	4
		272		4
		1.		3
		I	275	4

# ROUND NUMBER 183 CONTINUED

ſ	281	5
ī	285	5
I	287	1

PROJECTILE TYPE -SIERRA, JSP PROJECTILE VELOCITY (MPS) -281.70

PROJECTILE	DEFORMATION		I CAVITY MEASUR	EMENTS
PENETRATIO CISTANCE ( 14 37 66 95 125		AREA (MM**2) 60 51 58 59 60	I PENETRATION I DISTANCE (MM) I C I 5 I 11 I 17 I 23 I 29	12 17 21 23 23 23
PENETRATION DEPTH  00			I 35 I 41 I 47 I 53 I 59 I 65 I 71 I 77 I 83 I 88 I 94 I 100 I 106 I 112 I 118 I 124 I 130 I 136 I 136 I 142 I 148	23 23 23 21 20 21 21 22 21 20 20 20 20 18 18 18 18 17 16 16
50 -100	CAVITY PROF	50 100 ILE	1 166 172 178 183 190 196 201 207 213 219 225 231 237 243 249 255 261 267 272	15 15 14 13 13 13 13 12 11 12 10 11 10 9 9 9 9 8 8 7

# ROUND NUMBER 182 CONTINUED

I	285	7
Ţ	290	7
ſ	296	7
[	302	6
I	308	6
I	314	6
1	320	6
I	9	o
Į.	$\mathbf{e}$	0

PROJECTILE TYPE -SIERRA, JSP PROJECTILE VELOCITY (MPS) -337.54

PR	OJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
	NETRATION STANCE (MM) 17 45 79 112 146	PRESENTED AREA (MM**2) 61 57 54 59 60	CRGSS-SECT AREA (MM**2) 61 57 54 59 60	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35 I 41	17 20 23 26 28 29 29
	250			I 47 I 53 I 59 I 64 I 70 I 76 I 82	29 28 28 28 28 28 28
ION DEPT	200		_	I 88 I 94 I 100 I 106 I 112 I 117	28 27 27 26 25 25
PENETRAT	100			1 153 1 158	24 22 22 22 21 21 20
1.4.	50			170 176 182 188 194	21 20 20 19 19 18
		-50 0 VITY PRØF		206 212 218 223 229 235 241 247 253 258 264	17 15 15 14 14 14 14 13 12
				264 270	12 12 11 10

# ROUND NUMBER 181 CONTINUED

ı	282	9
I	288	9
1	294	8
1	300	7
I	306	7
Ī	311	7
Ī	318	6
I	Ġ.	0
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PROJECTILE TYPE -SIERRA, JSP PROJECTILE VELOCITY (MPS) -356.49

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (HM) 12 41	PRESENTED AREA (MM++2) 63 66	CROSS-SECT	I I PENETRATION I DISTANCE (MM) I O I 5	CAVITY RADIUS(MM) 19 22
77 111 147	62 72 69	62 72 69	I 12 I 18 I 24 I 29	26 29 30 31
300		······	I 36 I 42 I 48 I 54	32 32 32 31
I 250		_	1 60 I 66 I 72 I 78	39 31 30 30
500		_	I 84 I 90 I 96 I 102	30 29 29 28
PENETRATION 100 1			I 108 I 114 I 120 I 126	28 26 28 26
100 -		-	I 132 I 138 I 144 I 150	25 24 24 24
50 -		_	I 156 I 162 I 168 I 174	22 22 22 22
3			I 180 I 186 I 192 I 199	19 19 18 18
-100 CI	-50 0 AVITY PROF		I 204 I 210 I 217 I 222	18 18 17 16
			I 229, I 235 I 241 I 247	15 14 14 13
			I 253 I 259 I 265 I 271	13 14 13 11
			I 277 I 283	11

I	289	Q)
1	295	9
ĭ	301	8
1	307	7
1	313	7
1	319	7
I	324	8
1	0	n
ī	0	n

PROJECTILE TYPE -SIERRA, JSP PROJECTILE VELOCITY (MPS) -373.53

	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM)			I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS ( MM)
13	64	6.4	1 0	23
43	64	6.4	1 5	26
80	63	63	1 15	29
114	8 4	84	I 17	32
150	71	71	1 23	34
			I 29	35
			I 35	36
			I 41	37
			I 47	3 <i>7</i>
200	representation of the second		1 53	37
	1 11		I 58	35
·	/ \		1 64	33
			I 70	33
F 250 F	1		76	34
•			I 82	34
			1 88	33
:			I 94	32
.a 265 ⊨				
	1	<b>-</b>	I 100	30
<u> </u>	/	!	I 105	29
_		: F	I 111	29
150	)	i I	1 117	26
r (a)	/ (	$\dashv$	1 123	26
	( )		1 129	27
	) (		I 135	27
1 100			I 141	25
2 100 -	/	-	1 147	24
_i	1		I 153	24
	1	1	T 159	23
	/	1	1 165	23
50 <del> -</del>		<b>→</b> 1	I 170	22
1		ļ .	I 176	20
!	\	ı .	182	19
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		50 100	206	17
ĿĦV	'ITY PROF	ILE :	212	16
			218	15
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		1		1 4
	•	I		1.4
			235	14
		J	241	1.3
		1		12
		1		13
		I	259	12
			265	12 11 10

I	283	8
1	289	9
Ī	294	7
I	- 300	7
I	306	6
I	312	6
1	317	6
1	n	n
T	n	۸

PROJECTILE TYPE -SIERRA, JSP PROJECTILE VELOCITY (MPS) -389.27

P	ROJECTILE	DEFORMATION	(a	I CAVITY MEASUR	EMENTS
	ENETRATIO ISTANCE ( 18 48 84 119 149	N PRESENTED MM) AREA (MM**2) 60 51 54 54 58	AREA (MM**2) 61 51 55 55 62	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 28 I 35	22 25 27 30 32 34 34
HIGHERATION DEPTH	300 - 250 - 150 - 100 - 50 -	CAVITY PROF	50 100	1 40 1 46 1 52 1 57 1 63 1 69 1 75 1 81 1 86 1 92 1 98 1 104 1 109 1 115 1 121 1 127 1 133 1 139 1 144 1 150 1 156 1 156 1 150 1 156 1 173 1 179 1 185 1 191 1 196 2 02 2 08 2 14	34 35 36 36 36 33 33 33 33 33 28 25 22 21 29 19 18 18 17 17 16 16 15 15
			] ] ] ]	226 231 237 243 249	14 14 14 14 14

PROJECTILE TYPE -SIERRA, JSP PROJECTILE VELOCITY (MPS) -418.68

<b></b>	PROJECTILE DEFORMATION			I CAVITY MEASUR	EMENTS	
		RATION ICE (HM)	PRESENTED AREA (MM++2)	CROSS-RECT AREA (MM++2)	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS(MM)
		17	67	67	1 0	31
		19	74		I 6	36
		3.5	74		1 11	4 0
	1 1		8.0		1 18	44
	1 4	19	69	87	I 23	47
					I 30	48
					I 36	49
					J 41	59
					I 48	<b>5</b> 1
	300				T 53	51
	نا با د		T	T	I 59	51
					1 65	51
		-			71	51
T	250	<u>L</u> _	\	:	77	49
⊢	C (2)			—	1 83	49
<u>ů</u> .				•	1 89	48
لاحا					1 95	47
$f(\cdot, \cdot)$	ลยอ		/ \	1	I 101	46
~	00			7	1 107	44
Z					1 113	43
-					T 119	40
<b>+</b>	150	$\vdash$			I 126 I 131	37
Ţ.	• • •		)		• , • .	35
T-			/		• , , , ,	35
			/		I 143 I 150	34 31
ш.і. Z	190	-	\		I 155	30
ناد		: /	,		161	29
LΣ		[			, 161 J 167	29
		1		1 !	173	28
	50	<u> </u>		) i	179	27
		\ \ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	)		185	26
		1	\		191	25
	~	İ	\			22
	3	• <u></u>		L	203	20
	- 1	100 -5	0 0 5	ა 100 i	209	18
			ITY PROFÍ			18
		Ç □ ¥	TITLE NUFT	L II.	221	17
				1		17
					1 233	16
				1	239	16
				1		15
				1		14
				J		14
				1		13
				3		12
				Į.		12
				207	281	12

### ROUND NUMBER 205 CONTINUED

I	28 <i>7</i>	1.1
I	293	10
I	299	10
1	305	9
1	311	8
I	317	7
ĭ	321	7
1	Ö	0
ī	ñ	9

PROJECTILE TYPE -SIERRA, JSP PROJECTILE VELOCITY (MPS) -180.04

PROJECT	ILE DE	FORMATION		I CAVITY MEASUR	EMENTS
	E (MM)	AREA (MM**2)		I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM
4		53 53	<b>53</b>	î ö	8
22 41		58	58 50	I 5	8
62		5.8 <b>4.5</b>	58 46	I 11 I 17	9
84		59	59	i 23	11 12
0.		J 7	37	1 29	12
				i 35	12
				I 41	12
				I 47	11
				I 53	41
300	Γ	T	T	1 59	10
		' ( ) '		i 65	10
				1 71	10
T- 5000			1	I 77	9
<u>∓</u> 250 −			7	1 83	9
<u>6.</u>				I 39	8
ئـــــا			ĺ	I 95	8
<sup>_</sup> 200			_	I 161	8
				I 107	8
Z S				I 113 I 119	8
<u> </u>				I 125	7 8
F- 150	$\vdash$	{ }	$\rightarrow$	I 130	8
CT -				I 136	8
<u>rr</u>				I 142	8
				1 148	9
岁 100	<b></b>		$\dashv$	I 154	9
المناسا		1	-	1 160	8
<u>Ci.</u>				I 166	8
50	L		i	I 172	ర
:3(:			7	1 178	9
				I 184	9
	1			I 190	10
С	L		1	1 196	11
	dd	50 0 E	o 100	I 202	10
1				I 208	10
	LH/	/ITY PROFI	L L t-	1 214	11
				I 220 I 226	11 11
				I 232	11
				T 238	11
				I 244	11
				1 249	ič
				I 255	9
				I 261	9
			205	1 267	8
			285	1 273	7
				I 279	7

# ROUND NUMBER 192 CONTINUED

Ī	285	7
Ĭ	291	5
I	297	4
I	303	2
I	309	3
I	315	3
I	319	3
ī	0	O
I	0	0

PROJECTILE TYPE -SIFRRA, JSP PROJECTILE VELOCITY (MPS) -260.29

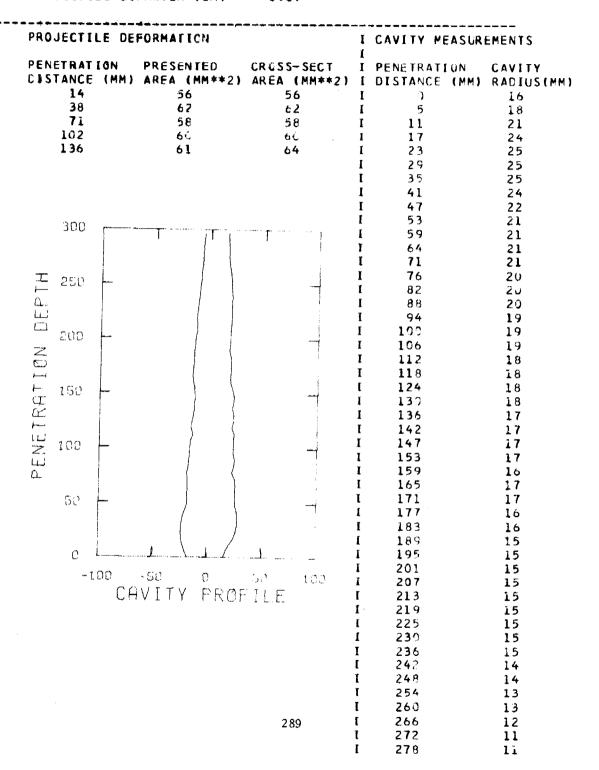
PROJECTILE DE	PROJECTILE DEFORMATION			EMENTS
PENETRATION CISTANCE (MM)			T I PENETRATION I DISTANCE (MM)	
11 32	61 67	61 67	I 0 I 6	14 16
60	67	67	1 11	18
87	71	71	i 17	21
115	70		I 24	23
	•		I 29	25
			I 35	27
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			I 47 I 53	24 24
300			I 59	24
	' (')	}	I 65	24
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I 250 -	( )		1 77	22
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	1	İ	I 89 I 95	21 22
			I 101	22
200	( )	4	107	20
O O	/		I 113	20
	\$	1	I 119	20
F- 150 -	/ \	L L	I 125	19
Œ	<i>\</i>		1 131	18
£ .		· ·	I 137	18
			I 143 I 149	18 16
E 100			I 155	14
Ĺ,			I 161	13
Δ.	1		I 167	13
50 <b>–</b>	1		1 172	14
			I 178	13
			I 184 I 190	12
		•	I 197	12 12
0			202	រិទិ
			1 208	1.4
CAV	/ITY PROF	ILE	I 214	13
			I 220	9
			I 226	9
			[ 232 [ 238	8 9 8 9
			l 244	7 8
			250	9
		1	256	15
•		1	I 262	9
		707	268	â
			274	8
		1	1 280	9

### ROUND NUMBER 191 CONTINUED

I	286	8
Ţ	292	8
I	298	7
I	304	7
Ī	310	6
t	316	6
Ī	321	6
Į.	Ċ	Ü
I	0	0

PROJECTILE TYPE -SIERRA, JSP

PROJECTILE VELOCITY (MPS) -295.35



# ROUND NUMBER 190 CONTINUED

I	284	11
I	289	10
I	296	10
I	301	9
I	307	9
ţ	313	8
I	317	9
I	0	0
I	0	0

PROJECTILE TYPE -STERRA, USP PROJECTILE VELOCITY (MPS) -343.63

PENETRATION DISTANCE (MM) AREA (MM**2) AREA (MM**2) I DISTANCE (MM) RADIUS(MM)  1	PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
43 92 93 1 5 22 79 90 91 1 11 26 114 93 93 1 17 28 152 100 100 1 23 30 1 29 31 1 35 31 1 41 32 1 46 31 1 58 30 1 58 30 1 64 29 1 76 27 1 76 27 1 76 27 1 82 27 1 88 26 1 93 25 1 105 2 1 105 2 1 105 2 2 1 105 2 2 2 1 105 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	DISTANCE (MM)	AREA (MM**2)	AREA (MM**2)	I DISTANCE (MM)	RADIUS (MM)
79 90 91 1 11 26 114 93 93 1 17 28 152 100 160 1 23 30 1 29 31 1 41 32 1 46 31 1 52 29 1 52 29 1 58 30 1 70 27 1 76 27 1 76 27 1 76 27 1 76 27 1 76 27 1 76 27 1 76 27 1 76 27 1 76 27 1 76 27 1 76 27 1 76 27 1 76 27 1 76 27 1 76 27 1 76 27 1 76 27 1 76 27 1 76 27 1 100 20 200 21 100 22 1 111 23 201 117 24 1 123 23 1 117 24 1 129 23 21 1146 21 1 129 23 23 1 146 21 1 146 21 1 158 20 1 146 21 1 158 20 1 164 19 1 176 19 1 181 19 1 188 18 1 19 1 188 18 1 19 1 188 18 1 19 1 188 18 1 19 1 188 18 1 19 1 188 18 1 19 1 188 18 1 19 1 189 18 1 193 17 1 176 19 1 189 18 1 193 17 1 176 19 1 189 18 1 193 17 1 170 20 1 1 189 18 1 193 17 1 170 20 1 1 22 1 1 25 1 228 16 1 225 1 240 15 1 250 14 1 258 13 291 1 264 12					_
114 93 93 1 17 28 152 100 100 1 29 31 1 35 31 1 41 32 1 46 31 1 58 30 1 76 27 1 58 30 1 76 27 1 76 27 1 76 27 1 76 27 1 76 27 1 76 27 1 99 25 1 105 24 1 111 23 200 200 200 200 200 200 200 200 200 2					
152 100 169   29 31   29 31   35 31   41 32   46 31   46 31   52 29   58 30   64 29   76 27					
1   35   31   41   32   46   31   52   29   58   30   58   30   58   58   58   58   58   58   58   5	152	100	160	I 23	
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1					
1   52   29   1   58   30   1   64   29   1   76   27   1   76   27   1   76   27   1   76   27   1   76   27   1   82   27   1   99   25   1   105   24   111   23   111   111   23   23   1   117   24   1   129   23   1   129   23   1   129   23   1   140   22   1   140   22   1   140   22   1   140   22   1   164   19   17   17   17   17   17   17   17					
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1 64 29					
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1 82 27	1				
1	I 260		i i		
1   99   25     1   105   24     1   111   23     1   117   24     1   129   23     1   134   23     1   146   21     1   152   21     1   164   19     1   170   20     1   188   18     1   193   17     1   199   17     1   188   18     1   199   17     1   199   17     1   199   17     1   199   17     1   199   17     1   199   17     1   199   17     1   199   17     1   222   15     2   246   14     1   252   14     1   252   14     1   252   14     1   258   13     291   1   264   12     1   269   12	h				
1   105   24   24   111   23   117   24   129   23   129   23   134   23   140   22   15   158   20   164   19   176   19   19   19   19   19   19   19   1	<u>a_</u>	)		I 93	25
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1   129   23   23   23   23   240   24   25   24   25   24   25   25   25					
1 170 20 1 176 19 1 181 19 1 188 18 1 199 17 1 199 17 1 199 17 1 225 17 1 211 17 1 222 15 1 228 16 1 235 15 1 240 15 1 240 15 1 246 14 1 252 14 1 258 13 291 1 264 12	<del></del>				
1 170 20 1 176 19 1 181 19 1 188 18 1 199 17 1 199 17 1 199 17 1 225 17 1 211 17 1 222 15 1 228 16 1 235 15 1 240 15 1 240 15 1 246 14 1 252 14 1 258 13 291 1 264 12	CT TOU	/	!		
1 170 20 1 176 19 1 181 19 1 188 18 1 199 17 1 199 17 1 199 17 1 225 17 1 211 17 1 222 15 1 228 16 1 235 15 1 240 15 1 240 15 1 246 14 1 252 14 1 258 13 291 1 264 12	交		The state of the s		
1 170 20 1 176 19 1 181 19 1 188 18 1 199 17 1 199 17 1 199 17 1 225 17 1 211 17 1 222 15 1 228 16 1 235 15 1 240 15 1 240 15 1 246 14 1 252 14 1 258 13 291 1 264 12	<b>├</b>	1			
1 170 20 1 176 19 1 181 19 1 188 18 1 199 17 1 199 17 1 199 17 1 225 17 1 211 17 1 222 15 1 228 16 1 235 15 1 240 15 1 240 15 1 246 14 1 252 14 1 258 13 291 1 264 12	- <del>빌</del> 100 ト				
1 170 20 1 176 19 1 181 19 1 188 18 1 199 17 1 199 17 1 199 17 1 225 17 1 211 17 1 222 15 1 228 16 1 235 15 1 240 15 1 240 15 1 246 14 1 252 14 1 258 13 291 1 264 12					
1 170 20 1 176 19 1 181 19 1 188 18 1 199 17 1 199 17 1 199 17 1 225 17 1 211 17 1 222 15 1 228 16 1 235 15 1 240 15 1 240 15 1 246 14 1 252 14 1 258 13 291 1 264 12	ā.	}	1		
I 181 19 I 188 18 I 193 17 I 199 17 I 199 17 CAVITY PROFILE I 211 17 I 222 15 I 228 16 I 235 15 I 240 15 I 246 14 I 252 14 I 252 14 I 258 13 I 264 12 I 269 12	i	{			
I 188 18 I 193 17 I 199 17 I 199 17 CAVITY PROFILE I 211 17 I 222 15 I 228 16 I 235 15 I 240 15 I 240 15 I 252 14 I 258 13 I 258 13 I 264 12 I 269 12	50				
CAVITY PROFILE  I 193 IT 199 IT 17 I 205 IT 17 I 211 IT I 222 IS I 228 I6 I 235 I 240 IS I 240 IS I 252 I4 I 252 I4 I 258 I 258 I3 I 264 I 269 I 269 I 269 I 269					
1 199 17 -100 -50 0 50 100 1 205 17 CAVITY PROFILE 1 211 17 1 222 15 1 228 16 1 235 15 1 240 15 1 246 14 1 252 14 1 258 13 291 1 264 12					
-100 -50 0 60 100 t 205 17  CAVITY PROFILE  I 211 17 I 222 15 I 228 16 I 235 15 I 240 15 I 246 14 I 252 14 I 258 13 I 264 12 I 269 12	o L				17
CAVITY PROFILE  I 211 17 I 217 17 I 222 15 I 228 16 I 235 15 I 240 15 I 246 14 I 252 14 I 258 13 I 258 13 I 264 12 I 269 12					
I 217 17 17 17 17 17 17 17 17 17 17 17 17 1					
I 228 16 I 235 15 I 240 15 I 246 14 I 252 14 I 258 13 I 264 12 I 269 12	Ų F	AATIA EROL			
I 228 16 I 235 15 I 240 15 I 246 14 I 252 14 I 258 13 I 264 12 I 269 12			1	222	15
I 240 15 I 246 14 I 252 14 I 258 13 I 264 12 I 269 12			1		16
I 246 14 I 252 14 I 258 13 291 I 264 12 I 269 12					15
I 252 14 I 258 13 291 I 264 12 I 269 12					
1 258 13 1 264 12 1 269 12					
291 I 264 12 I 269 12					
I 269 12					12
1 275 11					12
					11

#### ROUND NUMBER 188 CONTINUED

I	281	11
I	287	10
[	293	9
I	299	8
I	305	8
I	311	8
Ī	315	8
I	0	0
Ţ	n	0

PROJECTILE TYPE -SIERRA, JSP PROJECTILE VELOCITY (MPS) -351.96

PROJECTILE DEFORMATION			I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 13 43 80		AREA (MM**2) 92 94	I PENETRATION I DISTANCE (MM) I 0 I 5	18 21
116 153	95 102		I 11 I 17 I 23	24 27 29
	-112		I 29 I 35	30 31
			I 41 I 47	31 32
300			I 53 I 59	32 31
			l 65	30
I 250			( 71 1 77	30 30
	1		I 83 I 88	29 27
200 H			I 94 I 100	29 28
		1	I 106 I 112	26 26
ENETRATION 100	}		I 118 I 124	26 25
A. A.		(	I 130 I 136	25 25
当100		i	I 142 I 143	25 24
۵.		,	I 154 I 160	22 21
50			· · · · ·	20 <b>21</b>
		! 	I 178 I 183	22 22
o L	1 \ 1 \		[ 189 [ <b>19</b> 5	21 19
-100	-50 0	50 100	1 201 1 207	18 17
CA	VITY PROF	ILE 1	213 219	18 17
		I 1	231	15 15
		I I	237 243	15 14
		I I	255	14 13
		29 <b>3</b> I		12 11
		) 1	272	10 10

### ROUND NUMBER .200 CONTINUED

[	284	10
I	290	9
I	296	8
I	302	7
I	308	7
I	314	7

## PROJECTILE TYPE -SIERRA, JSP PROJECTILE VELOCITY (MPS) -384.85

PENETRATION CAVITY CDSTANCE (MM) AREA (MM**2)   PRESENTED AREA (MM**2)   PRESENTED CROSS-SECT   PENETRATION CAVITY CDSTANCE (MM) AREA (MM**2)   DISTANCE (MM) RADIUS(MM)  16	PROJECTILE DEFO	RMATION		CAVITY MEASUR	EMENTS
16 52 52 52 1 0 23 48 56 56 56 1 5 27 888 56 56 57 I 11 31 125 61 62 I 17 33 164 63 c4 I 23 35 I 29 36 I 315 38 I 41 38 I 41 38 I 41 38 I 41 38 I 41 38 I 41 38 I 41 38 I 41 38 I 41 38 I 41 38 I 41 38 I 41 38 I 41 38 I 41 38 I 41 38 I 41 38 I 41 38 I 58 35 I 88 35 I 194 34 I 100 32 I 1166 33 I 112 29 I 118 28 I 118 28 I 118 28 I 118 26 I 118 26 I 118 26 I 118 26 I 118 26 I 118 26 I 118 26 I 118 26 I 118 26 I 118 26 I 118 26 I 119 29 I 119 29 I 119 19 I 224 19 I 224 19 I 224 19 I 224 19 I 224 19 I 224 19 I 224 19 I 224 19 I 224 19 I 224 19 I 226 16 I 226 17 I 227 215	PENETRATION P	RESENTED Rea (MM**2)	CROSS-SECT AREA (MM**2)		
88 56 57 I 11 31 125 01 62 I 17 33 164 63 64 I 23 35 I 29 36 I 35 38 I 41 36 I 47 37 I 53 36 I 53 36 I 65 37 I 71 37 I 53 36 I 65 37 I 71 37 I 65 37 I 71 37 I 77 35 I 88 35 I 88 35 I 88 35 I 88 35 I 88 35 I 88 35 I 100 32 I 100 32 I 110 32 I 118 28 I 118 28 I 118 28 I 118 28 I 118 28 I 118 28 I 118 28 I 118 28 I 118 28 I 118 26 I 118 26 I 118 26 I 118 26 I 118 26 I 119 26 I 117 25 I 159 25 I 165 25 I 177 24 I 183 23 I 189 22 I 195 21 I 177 24 I 183 23 I 189 22 I 195 21 I 177 24 I 183 23 I 189 22 I 195 21 I 177 24 I 183 23 I 189 22 I 195 21 I 177 24 I 183 23 I 189 22 I 195 21 I 177 24 I 183 23 I 189 22 I 195 21 I 217 21 I 224 19 I 224 19 I 2254 17 I 2260 16				<b>r</b> 0	23
125 61 62 1 17 33 164 63 64 I 22 35 I 29 36 I 35 38 I 41 38 I 47 37 I 53 36 I 59 36 I 77 37 I 59 36 I 77 37 I 77 35 I 88 35 I 194 34 I 100 32 I 1100 32 I 1100 32 I 118 28 I 124 27 I 130 28 I 142 26 I 142 26 I 142 26 I 150 25 I 165 25 I 177 24 I 183 23 I 166 25 I 165 25 I 177 24 I 183 23 I 183 23 I 183 23 I 183 23 I 183 23 I 183 23 I 183 23 I 183 23 I 183 23 I 184 26 I 177 24 I 183 23 I 183 23 I 184 26 I 177 24 I 183 23 I 183 23 I 184 26 I 177 24 I 183 23 I 183 23 I 184 26 I 177 24 I 183 23 I 184 26 I 177 24 I 183 23 I 184 26 I 177 24 I 183 23 I 184 26 I 177 24 I 183 23 I 184 26 I 213 19 I 226 18 I 226 18 I 226 18 I 226 18 I 226 18 I 226 18 I 226 18 I 226 16 I 227 17 I 255 17 I 266 16 I 260 17 I 266 16	48	56			
164 63 64 1 29 36 1 35 38 1 41 38 1 47 37 37 37 37 37 37 37 37 37 37 37 37 37		56			
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## 250		/			
1 83 35   1 88 35   1 94 34   34   1 100 32   1 100 32   1 118 28   1 124 27   1 130 28   1 142 26   1 142 26   1 142 26   1 142 26   1 142 26   1 159 25   1 165 2	_		ţ.		
1	<u> </u>		_		
1 100   32   32   33   34   35   35   35   35   35   35	5		·		
1 100   32   32   33   34   35   35   35   35   35   35			i		
1   156   30   30   1   112   29   1   118   28   1   124   27   1   130   28   1   130   28   1   136   26   1   142   26   1   148   26   1   154   27   25   1   154   27   25   1   165   25   25   1   165   25   25   1   177   24   24   18   26   27   21   21   21   21   21   21   21			4		
1   112   29   1   118   28   28   27   27   27   28   28   2	200 🗁				
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1   136   26   26   26   26   27   27   25   25   25   27   27   27	<b>-</b> 150				
1   136   26   26   26   26   27   27   27   2	T 196 [	}	<b>−</b>		
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1 148 26 1 154 27 1 159 25 1 165 25 1 171 25 1 183 23 1 189 22 1 195 21 1 195 21 2 1 195 21 2 1 195 21 2 1 195 21 2 1 195 21 2 1 195 21 2 1 195 21 2 1 195 21 2 1 195 21 2 1 207 21 2 1 213 19 2 1 213 19 2 1 224 19 2 231 18 2 236 18 2 242 18 2 248 17 2 256 16 2 257 2 15	<b>⊢</b>				
I 165 25 I 171 25 I 177 24 I 183 23 I 189 22 I 195 21 I 207 21 CAVITY PROFILE I 213 19 I 224 19 I 231 18 I 236 18 I 242 18 I 248 17 I 260 17 I 266 16 I 295 I 272	号 100 <b>上</b>	·/ \	4		
1 159 25 1 165 25 1 171 25 1 177 24 1 183 23 1 189 22 1 195 21 1 207 21 1 213 19 1 219 19 1 224 19 1 231 18 1 236 18 1 242 18 1 248 17 1 254 17 1 260 17 1 266 16 295 1 272			7		
1 165   25   171   25   177   24   183   23   189   22   195   21   207   21   207   21   217   219   19   19   19   19   19   19   1	7	)			
I 177 24 I 183 23 I 189 22 I 195 21 -100 -50 0 50 107 I 207 21 CAVITY PROFILE I 213 19 I 224 19 I 231 18 I 236 18 I 242 18 I 248 17 I 254 17 I 260 17 I 266 16 295 I 272 15		(	!	I 165	25
T 183 23 T 189 22 T 195 21 T 195 21 T 197 21 T 207 21 T 213 19 T 219 19 T 224 19 T 231 18 T 236 18 T 242 18 T 242 18 T 248 17 T 254 17 T 266 16 T 295 T 272 15	50 <del> -</del>	)		171	
T 189 22 1 195 21 -100 -50 0 50 107 1 207 21 CAVITY PROFILE 1 213 19 1 224 19 1 231 18 1 242 18 1 248 17 1 254 17 1 260 17 1 266 16 295 1 272 15				1 177	
CAVITY PROFILE  I 195  CAVITY PROFILE  I 213  I 219  I 224  I 231  I 236  I 242  I 248  I 248  I 254  I 266  I 272			i i		
-100 -50 0 60 107 I 201 21 21 CAVITY PROFILE I 213 19 I 219 19 I 224 19 I 231 18 I 236 18 I 242 18 I 248 17 I 254 17 I 260 17 I 260 16 16 295 I 272 15	.		t .		
CAVITY PROFILE I 207 21 19 19 19 1 224 19 19 1 231 18 1 236 18 1 242 18 17 1 254 17 1 260 17 17 1 266 16 16 295 1 272 15	0	\/			
CAVITY PROFILE  I 213 I 19 I 219 I 224 I 19 I 231 I 8 I 236 I 8 I 242 I 8 I 248 I 7 I 254 I 7 I 260 I 7 I 266 I 6 I 295 I 272 I 5	-100 -50	) o s	1 • m		
I 219 19 I 224 19 I 231 18 I 236 18 I 242 18 I 248 17 I 254 17 I 260 17 I 266 16 295 1 272 15					
I 224 19 I 231 18 I 236 18 I 242 18 I 248 17 I 254 17 I 260 17 I 266 16 295 1 272 15	CITVI	TI I KOLI			
I 231 18 I 236 18 I 242 18 I 248 17 I 254 17 I 260 17 I 266 16 295 I 272 15	l				
I 236 18 I 242 18 I 248 17 I 254 17 I 260 17 I 266 16 295 I 272 15					
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I 266 I6 295 I 272 I5					
<sup>295</sup> 1 <b>27</b> 2 15					
			do-F		
1 410 IJ					13

### ROUND NUMBER 189 CONTINUED

ĺ	284	12
Ī	290	12
I	296	11
1	301	11
ĭ	307	11
I	313	10
I	319	9
1	325	8
I	0	3

PROJECTILE TYPE -SIERRA, JSP PROJECTILE VELOCITY (MPS) -395.84

PROJECTILE DEFORMATION	I CAVITY MEASUREMENTS
	S+SECT I PENETRATION CAVITY (MM**2) I DISTANCE (MM) RADIUS(MM)
	67 1 n <u>21</u>
	77 1 5 26
· · · · · · · · · · · · · · · · · · ·	74 I 11 31
	85 I 17 34
156 70 7	72 1 23 36
	1 29 38 1 35 40
	1 35 40 1 41 40
	1 47 41
	j 53 41
363	1 59 41
	1 65 41
	1 71 42
T \	1 77 42
王 250 — / /	T 1 83 41
	1 89 42
	, <b>1</b> 94 40
	1 100 39
i 1	1 106 38
E 150 - (	1 112 38
	1 118 38
⊢ 150 ├ / \	T 124 35
	1 130 33
	1 136 33
	1 142 32
∑ 103 ├	1 148 30
النا (	J 154 29 J 160 27
	1 165 27 1 172 27
50	1 178 26
	I 184 24
j /	j j89 24
$_{0}$ 1 $_{1}$ $_{2}$ $_{3}$ $_{4}$ $_{4}$ $_{4}$	1 195 24
· ·	1 201 24
-193 - <b>5</b> 0 0 50	100 1 207 22
CAVITY PROFILE	1 213 23
	1 219 22
ـ ـ	7 225 21
	1 231 20
	1 237 18
	1 243 17
	1 249 17
	I 255 17
	1 261 15
	1 267 14
	1 272 14
	297 1 278 1.3

# ROUND NUMBER 201 CONTINUED

I	284	13
I	290	12
1	296	10
1	302	9
I	308	9
1	314	8
I	318	7
1	n	n
I	n	n

PROJECTILE TYPE +SIERRA, JHP PROJECTILE VELOCITY (MPS) +355.24

PROJECTILE DE	FORMATION	******	I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM)			I PENETRATION I DISTANCE (MM)	
17	83	83	1 0	19
47 84	100 98	100 98	I 5 11	25
120	108	110	I 11 I 17	29 31
159	101	103	1 23	35
* U 3	A '' #	100	1 29	33
			1 35	34
			1 41	34
			1 47	3.3
200			1 53	33
300			5.9	32
	/ /		į 65	32
			J 71	30
± 250 -			77	5.9
<b>⊢</b>	) \		I 83	28
٥	{		1 89	28
ш) О оле			I 95	27
200 -		_	I 101	26
z	1	!	I 107 I 112	28
<b>D</b>			I 112 I 119	29 28
<u> </u>			I 125	27
₩ 150 H	)	<b>→</b>	1 130	27
2	1	i	1 136	25
<del> </del>	}		1 142	25
H 180	1 )		I 148	23
2 100	1	7	1 154	23
	1		1 160	5.5
Inches ··	/	!	1.66	21
รง	1	_	172	50
	(		1 178	20
	\		1 184	19
		1	1 197	19
0 ——			1 196	20
-100	-50 O	50 100	I 202 I 208	20 20
C		C T / C	I 214	19
C I		1 1 1 1	1 550	18
			1 226	1.8
			1 232	1.8
			1 238	16
			I 244	16
			1 249	16
			I 256	16
			1 261	1 4
			I 267	13
			I 273	13
			1 279	13
		299		

#### ROUND NUMBER 258 CONTINUED

I	285	1.8
1	291	1.1
Ĭ	297	11
I	303	9
1	309	Q)
1	315	10
I	320	a
1	n	n
t	n	n

PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -353.19

	-			
PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 16 46 84 120 159	PRESENTED AREA (MM**2) 81 95 116 106 119	CROSS=SECT AREA (MM**2) 81 95 117 107 126	I PENFTRATION I PISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35 I 41 I 47	CAVITY RADIUS (MM) 20 25 29 31 32 34 34 34 33
300			T 52 T 58 T 64 T 76 T 76 T 82	33 32 31 32 32 31
ON DEPTH 2000 -			7 88 7 93 7 99 7 105 7 111 7 117	31 30 29 28 28 28
H 150			I 123 J 129 I 135 I 140 I 146 I 152	27 25 25 26 25 24
2 100 2 50			T 158 T 164 T 170 T 176 T 182 T 187	24 23 23 24 22 23
-100 -100	-se e CAVITY PRO	50 100 FILE	1 193 1 199 1 205 1 211 J 217 1 223	22 21 20 20 19 18
٠. لـــ			I 228 I 234 I 240 I 246 I 252 I 258	17 17 17 17 16 16
		301	I 264 I 270 I 275	1 4 1 4 1 4

#### ROUND NUMBER 257 CONTINUED

I	281	13
Ī	28 <i>7</i>	12
Ţ	293	12
I	299	11
Ī	305	10
I	311	9
Ī	316	10
Ī	323	g
Ŧ		٥

PROJECTILE TYPE -SIERRA, JHP PROJECTILE VELOCITY (MPS) -570.80

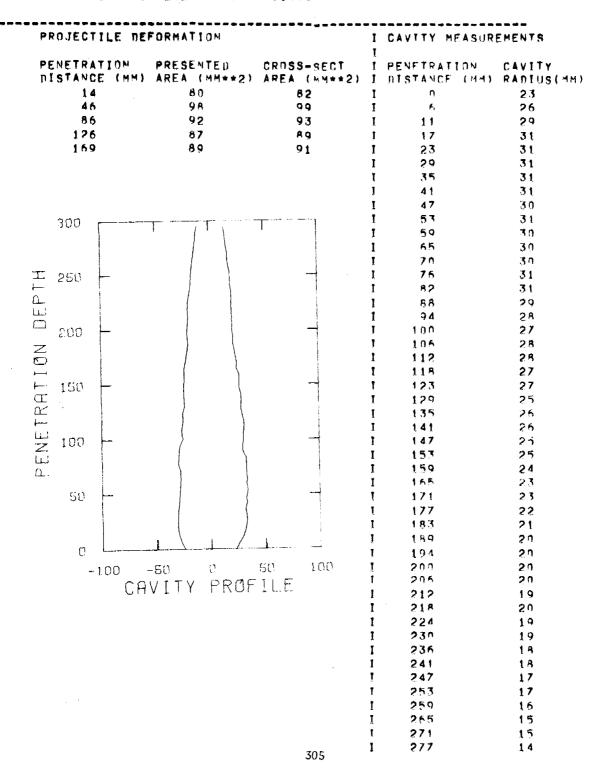
PROJECTILE DEFORMATION			I CAVITY MEASUREMENTS	
PENETRATION DISTANCE (MM) 15 46 85 123 162	PRESENTED AREA (MM**2) 86 86 86 88 94 95	CROSS-SECT AREA (MM**2) 86 86 88 94	I PENETRATION I DISTANCE (MM) I O 5 I 11 I 17 I 23 I 29 I 35	CAVITY RADIUS (MM) 21 22 24 27 30 31
300 I 250			41 1 41 1 53 1 58 1 64 1 70 1 76	33 33 31 31 31 30 29
10 200 - NOI			I 82 I 88 I 94 I 100 I 106 I 112 I 117	29 29 30 30 29 28 27
150 - HB 180			I 141 I 147 I 153 I 159	27 26 26 25 22 23 22 21
50 - 0 -100	-su o avity pro	se loc FILE	1 177 182 188 194 1200	22 21 20 21 21 20
_J	14 1 1 1 1 10		218 224 220 235 241 247	18 18 17 17 16 16 16
		1 1 1 303	259 265 271	15 15 15 15

### ROUND NUMBER 243 CONTINUED

I	283	14
I	289	1.3
I	294	12
Ĭ	300	1 1
1	306	11
I	312	10
I	318	10
I	322	10
1	n	n

PROJECTILE TYPE "SIERRA, JHP

PROJECTILE VELOCITY (MPS) -369.01



#### ROUND NUMBER 251 CONTINUED

Ī	283	13
Ī	289	12
Ţ	294	11
I	300	11
Ī	306	10
Ī	312	10
Ī	317	10
Ī	n	0
ī	ń	n

ROUND NUMBER - 73

PROJECTILE MASS (GM)- 6.480

PROJECTILE DIAMETER (CM) - .899

PROJECTILE TYPE -S+W. FJ. 9MM PROJECTILE VELOCITY (MPS) -502.14

29 29

27

271 276

282

I

PROJECTILE DEFORMATION			CAVITY MEASUREMENTS	
PENETRATION DISTANCE (MM 27	PRESENTED ( ) AREA (MM**2) A	-	I PENETRATION I DISTANCE (MMI I O	CAVITY RADIUS (MM) 28
128	<b>53</b>	54	1 12	31,
168	22	57	18	37 38
216	24	61		
			1 30 1 36	<b>39</b>
			I 36 I 42	40 41
			1 42 1 48	41
			I 54	41
300	TILL T	!	1 60	40
			1 66	40
:			1 72	40
			I 78	39
202 ⊨			1 84	39
25.2			I 90	38
1			I 96	38
<sup>3</sup> 950 ⊢		- <del>-</del> i	I 102	40
			1 108	39
<u> </u>	) /	i	1 114	37
· .			1 120	38
153		-	1 126	38
			1 132 I 136	38 37
			I 144	37
‡ 190 <del> -</del>	(		I 150	37
			1 156 1 162	37 37
			1 198	36 36
50 ⊢		i	I 180	37
:			1 186	38
	/		I 192	37
j L			I 198	36
	-53 3 56	100	1 204	35
-190	.5 .5		210	35
C A	VITY PROFI	L T.	1 216	34
			1 222	33 33
			I 228 I 234	33 32
			i 234 I 240	32 33
			I 246	32
			1 252	31
			1 258	30
			1 264	30
			. 6.V∃ 1 331	<b>70</b>

307

#### ROUND NUMBR 73 CONTINUED

1	288	27
I	294	26
Ĭ	300	25
1	307	23
1	312	23
ı	319	22
]	324	21
I	330	16
Ī	332	8

PROJECTILE TYPE -S+W. FJ. 9HM PROJECTILE VELOCITY (MPS) -404-24

PROJECTILE DEFORMATION			I CAVITY HEASUREHENTS	
		AREA (HM++2)	I DISTANCE (MH)	CAVITY RADIUS (HH) 15
57	50	53	1 7	16
				18 20
	34	44	1 24	21
			I 30	21
				21
				21 23
			i 53	23
300		·T	1 59	23
	' /' \	1 ;	; 65 1 71	25 27
		i :	1 77	28
200 <del> -</del>		<del>-</del> -		29 30 31
			1 100	31
200	\	1		34 35
		:	1 112 1 118	36
		:	1 123	37
				36 40
			1 141	41
		1	1 147	42
100		7		42 42
i		;	1 164	41
		*	1 170	41
50 🗕		-		40 40
		:		39
		_1		38 35
	-50 0	53 193	I 205	32 30
				29 28 27
		•		<b>3</b> 7
			1 239	25 24
			1 251	24
		•		22 21
		309	1 269	20
				18
	800 - 100	ENETRATION PRESENTED  ISTANCE (HM) AREA (HM**2)  23	EMETRATION PRESENTED CROSS-SECT ISTANCE (HH) AREA (HH++2) AREA (HH++2)  23	EMETRATION PRESENTED CROSS-SECT   PENETRATION ISTANCE (HH) AREA (HH=02) AREA (HH=02)   PENETRATION IDISTANCE (HH)    23

#### ROUND NUMBER 74 CONTINUED

I	280	16
1	286	14
1	292	12
1	298	12
1	304	11
1	310	10
1	315	10
1	321	8
ï	327	4

PROJECTILE TYPE -S+W, JHP, 9MM PROJECTILE VELOCITY (MPS) -183.17

PROJECTILE DEFORMATION		I CAVITY MEASUR	REMENTS
PENETRATION PRESENTED CRCS CISTANCE (MM) AREA (MM**2) AREA 4 56 20 51 41 58 61 55 83 61	SS-SECT A (MM**2) 56 51 58 55 61	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 18 I 23 I 27 I 32 I 37	CAVITY RADIUS (MM) 7 7 8 9 10 10 10 16 9
300 T T T T T T T T T T T T T T T T T T		I 41 I 46 I 51 I 55 I 60 I 65 I 69 I 74 I 79 I 83 I 88 I 93 I 102 I 107 I 111 I 116 I 121 I 126 I 130 I 135 I 139 I 144 I 149 I 153 I 158 I 167 I 172 I 177 I 181 I 186 I 191 I 195 I 205	8 8 8 8 8 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
	311	I 209 I 214 I 219	5 5 4

#### ROUNE NUMBER 134 CONTINUED

I	223	4
I	228	4
I	233	4
I	238	4
I	242	4
Ī	247	4
I	249	2
I	0	ō
I	o	Ō

PROJECTILE VELOCITY (MPS) -255.28

PROJECTILE TYPE -S+W. JHP. 9MM

PROJECT	ILE DE	ORMATION		I CAVITY MEASUR	EMENTS
PENETRA DISTANO 7 29 57 84 112	E (MM)	PRESENTED AREA (MM**2 58 66 59 71 66	CROSS-SECT ) AREA (MM**2) 58 66 60 71 67	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32	CAVITY RADIUS (MM) 11 11 12 14 15 16 16
300	<b>F</b> ( )			I 36 I 41 I 46 I 50	15 15 14 14
王 百 日				I 55 I 60 I 64 I 69	14 13 13 12
I UN DE			_	I 74 I 78 I 83 I 88	12 12 12 12
150 C. 150				I 92 I 97 I 101 I 106	12 12 12 12
년 년 일 일	_		-	I 111 I 115 I 120 I 124	12 11 11 11
50	_		-	I 129 I 134 I 138 I 143	11 11 11 12
C -1		I LI ( 50 c 'ITY PROF	100 ILE	I 147 I 152 I 157 I 161 I 166 I 171 I 175 I 180 I 184	12 12 13 14 15 15 15 15
			313	I 189 I 194 I 198 I 203 I 208 I 212 I 217	14 14 13 13 12 11

### ROUND NUMBER 133 CONTINUED

I	221	9
I	226	9
I	231	9
I	235	9
I	240	8
1	245	9
I	249	9
Ī	254	9
Į	258	8
Ī	263	7
I	268	6
Ī	272	6
I	277	5
I	282	5
I	286	4
1	291	5
I	295	4
I	300	4
I	305	2
Í	0	0
I	0	U

PROJECTILE TYPE -S+W. JHP. 9MM PROJECTILE VELOCITY (MPS) -335.31

PROJECTILE DEFORMATION			I CAVITY MEASUR	 EMENTS	
PENETRA	TION E (MM)	PRESENTED AREA (MM**2) 72 107 123 95 94	CROSS-SECT AREA (MM**2) 72 107 123 99 104	I PENETRATION I DISTANCE (MM) I O I 4 I 9 I 13 I 18 I 23 I 28 I 32	CAVITY
PENETRATION DEPTH 300 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		T T T T T T T T T T T T T T T T T T T		I 37 I 42 I 46 I 51 I 55 I 60 I 65 I 70 I 74 I 79 I 84 I 93 I 102 I 107 I 111 I 116 I 121 I 126 I 130 I 135 I 139 I 144 I 149 I 153 I 158 I 163 I 177 I 181 I 186 I 191 I 195 I 195 I 200	35 34 33 33 33 32 31 39 22 22 22 21 21 21 21 21 21 21 21 21 21
			315	I 205 I 209 I 214 I 219	6 6 6 5

### ROUND NUMBER 132 CONTINUED

[	223	5
I	228	4
I	233	4
I	237	4
I	242	4
I	247	4
I	251	3
I	254	1
1	O	0

PROJECTILE TYPE -S+W. JHP., SMM PROJECTILE VELOCITY (MPS) -419.83

PROJECTIL	E DEFORMATION	I CAVITY MEASUR	EMENTS	
14	(MM) AREA (MM**2 94	94	I PENETRATION I DISTANCE (MM) I 0 I 4	CAVITY RADIUS (MM) 28. 32
43 75	211 203	212 203	I 9	36
101	196	198	I 13	39
124	195	196	I 18	42
			I 23	43 44
			I 27 I 32	45
			I 36	46
300 -			I 41	47
İ	1 1	1	I 46	47
			I 50	47
王 250	_		I 55	46
F- 1	•	7	I 60	46
۵.			I 64 I 69	45 44,
(7)		ļ	I 74	42
200 <del> </del>		-	ī 78	41
N D	/ \		1 83	40
7	/ \		I 88	39
- 150 kg	_ / \		1 92	37
CT.			I 97	35
F .			I 102 I 106	34 32
	/		I 111	30
변 190	- /	\	I 116	29
الم ا			I 120	27
<u> </u>			I 125	25
50 H	-		I 129	23
		)	I 134	22
			I 139 I 143	21 20
		/1	I 148	18
0 <b>L</b>		and the same of th	I 153	16
19		50 . 100	I 157	14
	CAVITY PROF	FILE	I 162	12
			1 167	11
			I 171 I 176	10
			1 181	9 8 7
		•	I 185	7
			I 190	6
			I 194	6
		•	I 199	6 5 2
			I 201	2

PROJECTILE TYPE -SON, JMP, PMM PROJECTILE VELOCITY (MPS) -461.12

PROJECTILE DEFORMATION I				I CAVITY HEASUR	EMENTS
	ENETRATION ISTANCE (M	PRESENTED R) AREA (MM++;	CRUSS-SECT 2) AREA: (MR4-2)	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM)
	22 53	122 124	123 124	I 0 I 5	35 40
	115	136 136	136 136	I #	44 49
	139	129	129	} <b>3</b> 3	52 54
				1 35 1 41	57 58
				i 46 i 53	59 60
	000 -			I 58	59
	, ,			) 64 ) 70	59 58
工				I 76 I 82	56 54
μ.	850			I 88 I 94	52 48
نـبا دے				J 100	44
	500		I	I 106 I 112	41 39
Z S				1 117	35
<u></u>	150			1 123	33 32
<u>ت</u> ت		}		I 135 I 141	28 26
	190			1 153	24 20
<u>2</u> .	150			1 122	20 18
Δ.				I 170 I 177	16
	50 ⊢		1	I 182	14 12
				] 188 I 194	10 10
	a L	1	4	1 200 1 206	8 7
	-100 CC	~50 0	5J 100	I 212	7
	L F	IVITY PROF		I 218 I 223	6 6
				I 229 I 231	4 2
				0	ō

PROJECTILE TYPE -S+W. JHP., 9MM PROJECTILE VELOCITY (MPS) -155.83

				I CAVITY MEASUREMENTS	
	SETRATION TANCE (MM)	AREA (MM**2) AR	CSS-SEC F	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM)
	1 16	56 52		0 I	6
	34	55 55		Í 4 I 9	7 7
	51	ร์ว์		13	7
	71	47		I 18	8
			1	I 23	8
			•	1 29	8
				1 32	8
				I 37 I 42	9 8
	300			1 42 [ 46	8
		1 1			9
				56	9
T-	250		] 1	61	9
I	230			65	10
α.					10
				· · ·	11 11
	200 -	$\bigcap$	<b>-</b> ∤ i		11
0 N					11
10			1		11
⊬	150	1	]		11
H H					11
7			1	_	10
الما		.   \			10 9
<u>  141</u>   <u>  2</u>	100		- <del>- </del> i		8
			I	126	8
<u> </u>					7
	50 <del> </del>			,	7
	į			140 145	7 7
			İ		6
	o L			154	6
		-50 o so	1 00.	· · · · · · · · · · · · · · · · · · ·	6
			100		6 5 5
	CH	VITY PROFIL	<u> </u>	168 173	5 4
			Ī		4
		u .	Ī		
			I	187	3
			I	192	3
			I	196 201	<b>3</b>
			ı I		2 2
			I		2
			319	. 0	4 3 3 3 2 2 0 0
			I	3	Ŭ

PROJECTILE TYPE -S+W, JHP, 9MM PROJECTILE VELOCITY (MPS) -263.21

PROJECTILE DEFORMATION				I CAVITY MEASUR	EMENTS
	RATION NCE (MM)	PRESENTED AREA (MM**2)	) AREA (MM**2)	I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM)
	31	63	63 63	I 0 I 4	10
	61	61	62	. 7	11
	89	75		i 13	13
	21	66	66	ī 18	14
	- <del>-</del>			I 23	15
		$(e_{ij})_{ij} = e_{ij}$		I 27	15
				1 32	15
				I 36	15
2	, ne		a management of the same of the same	I 41	15
		1 .		I 46	14
	1			I 50	14
				I 55	15
7	10 <b>⊢</b>	/ / .		I 59	15
;	!	( )		I 64	14
1.1.1 1.1.1	i		i i	I 69	14
41.0	i			I 73	13
3,4	ú:" ⊨		the state of the s	I 78	13
* -				I 82	13
				I 87 I 91	13 14
	. ,	\ \ \		I 96	15
- d	5.` -			1 101	15
		1		I 105	14
•.		1.		1 110	15
1.	).) 📙			I 114	14
		\		I 119	14
: I :		1		I 124	15
. ,				I 128	14
r	;;; ⊢	1 1		I 133	14
		-		I 138	14
			!	I 142	15
		1 / 1		I 147	16
	J. 4	المحلات المحلات		I 151	16
	-102	-50 0	55 1 1 (1) 1	I 156	17
	r c		ETIE	161	18
	<u> </u>	1.4.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1		I 165	18
				I 170	18
				I 174 I 179	18
		•		I 179 I 183	18 18
				I 188	17
				1 193	16
		100		1 197	16
				I 202	14
			<b>~</b> _	I 207	13
	•		320	I 211	12
				I 216	12

Ī	220	. 12
I	225	12
I	230	11
I	234	11
I	239	. 11
I	243	10
Ĭ	248	. 9
I	253	9
1	257	8
Ī	262	8
1	266	7
I	271	7
Ī	276	6
I	280	5
Ï	285	5
I	289	4
Ĭ	294	4
I	299	4
ī	303	4
I	308	4
Ī	0	ن

PROJECTILE TYPE -S+W. JHP. 9MM PROJECTILE VELOCITY (MPS) -325.64

PROJECTILE DE	FORMATION		I CAVITY MEASUR	REMENTS
PENETRATION CISTANCE (MM) 11 37 68 96 124	PRESENTED AREA (MM**2 59 95 112 90 101	CROSS-SECT ) AREA (MM**2) 59 96 113 94 112	I PENETRATION I DISTANCE (MM) I C I 4 I 9 I 14 I 18	13 17 21 23 26
30.2	П	· · · · · · · · · · · · · · · · · · ·	I 23 I 28 I 32 I 37 I 42 I 46 I 51 I 55	28 30 31 32 32 31 31
1			I 60 I 65 I 69 I 74 I 79 I 83 I 88 I 93	30 30 29 29 29 29 28 28 27
150 - C.F. 190 - C.F.			I 97 I 102 I 107 I 111 I 116 I 121 I 125 I 130	26 25 24 23 22 22 21 19
	-50 0 VITY PROF	<b>1</b>	I 135 I 139 I 144 I 149 I 153 I 158 I 163 I 167 I 172	19 18 17 16 15 14 14 13
		322	177 1 181 1 186 1 191 1 195 1 200 1 204 1 209 1 214 1 218	14 13 13 13 12 12 12 11 11

I	2.23		8
ľ	229		7
Ī	233		7
I	237	1.4	7
	242		6
ŧ	246	* *	. 6
Ī	251		6
Ī.	256		5.
I I I I	260		5
	265		5
[ [	270		5
I	274		5
Į.	279		4
	284		4
[ [	288		4
ľ	293		4
Ĺ	298		3
Ī	302		3
Ī	304		1
[ [ [	3		G
ſ	r:		

PROJECTILE TYPE -S+W, JHP, 9MM PROJECTILE VELOCITY (MPS) -381.95

PROJECTILE DE	FORMATION	I CAVITY MEASUREMENTS		
PENETRATION CISTANCE (MM) 13 40 73 99 124	PRESENTED AREA (MM**2) 96 173 182 168 163		PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32	21 22 26 30 34 36 38 40
	-53 o VITY PROF	50 100 ILE	1 37 41 1 46 1 50 1 55 1 60 1 64 1 74 1 78 1 88 1 92 1 106 1 111 1 125 1 130 1 134 1 139 1 148 1 148 1 153 1 158 1 158 1 167 1 176 1 181 1 185 1 195 1 195 1 199 1	41 41 41 42 42 44 43 37 33 33 33 32 22 22 31 31 31 31 31 31 31 31 31 31 31 31 31

PROJECTILE VELOCITY (MPS) -427.49

PROJECTILE TYPE -S+W, JHP, 9MM

PROJECTILE D	EFORMATION	I CAVITY HEASU	REHENTS	
PENETRATION DISTANCE (MM 21 51 86 115 142	PRESENTED  1 AREA LHH**;  104  204  191  199 204	104 205	I PENETRATION I DISTANCE IMM I O 5 I 11 I 17 I 23 I 29	CAVITY ) RADIUS (HM) 27 33 38 42 46 48
300 SENETRATION DEPTH 50 0 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	-50 C AVITY PRO	50 100	1 35 1 41 1 47 1 52 1 58 1 64 1 70 1 16 1 100 1 106 1 112 1 117 1 123 1 129 1 135 1 141 1 147 1 153 1 158 1 164 1 170 1 170 1 182 1 188 1 199 1 188 1 199 1 205 1 217 1 223 1 229 1 235 1 241	51 53 53 54 55 55 55 55 56 44 41 39 38 37 37 37 37 32 21 20 11 10 88 77 6
PENETRATION DEP		50 193	T 70 T 76 T 82 T 88 T 94 T 100 T 106 T 112 T 117 T 123 T 129 T 135 T 141 T 147 T 153 T 158 T 164 T 170 T 176 T 182 T 188 T 199 T 205 T 211 T 217 T 223 T 229 T 235	55 53 52 54 44 41 39 37 37 37 32 21 21 10 88 77

PROJECTILE TYPE -S+W. JSP. 9MM PROJECTILE VELOCITY (MPS) -133.39

	PROJE	TILE DE	FORMATION	I CAVITY MEASUR	EMENTS	
	PENETRATION CISTANCE (MM) 37		PRESENTED AREA (MM**2) 44	52 I 0		CAVITY RADIUS (MM)
	5 8	i6 i9 i3	45 48 39	57 60 54	I 4 I 9 I 14	6 7 7
	1				I 18 I 23 I 28	7 7 7
	300				I 32 I 37 I 42	7 6 6
	3UC				I 46 I 51 I 56	6 5 5
I L L L	250				I 61 I 65 I 70	5 5 5
				_	I 74 I 79 I 84	5
2 E F					I 89 I 93 I 98	5 5 5 5
T C T					l 103 I 107 I 112	5 5 4
11 22 11 11	ال	-			I 117 I 121 I 126	4 3 3
	50			-	I 131 I 135 I 140	3 3 2
	o				I 145 I 0	0
		100 -5 CAV				

PROJECTILE TYPE -S+W. JSP. 9MM PROJECTILE VELOCITY (MPS) -257.00

PROJECTI	LE DEFORMATION	I CAVITY MEASUREMENTS		
PENETRAT DISTANCE 8 31 59 85 114	ION PRESENTED (MM) AREA (MM**2) 57 63 62 66 65	CROSS-SECT AREA (MM**2) 57 63 62 66 65	I PENETRATION I DISTANCE (MM) I 0 4 4 1 9 1 13 1 18 1 23 1 27 1 32	CAVITY RADIUS (MM) 13 13 13 14 15 15
PENETRATION DEPTH	CAVITY PROF	ILE	I 37 I 41 I 46 I 51 I 55 I 60 I 65 I 69 I 74 I 78 I 83 I 88 I 92 I 101 I 106 I 111 I 115 I 120 I 125 I 129 I 134 I 138 I 143 I 148 I 152 I 166 I 171 I 175 I 180 I 185 I 189 I 194 I 199	16 16 17 17 16 15 15 15 15 14 14 14 13 11 11 11 11 11 11 11 11 11 11 11 11
·.		327	1 203 I 208 I 213 I 217	8 8 8 8

### ROUND NUMBER 139 CONTINUED

I	<b>22</b> 2	8
I	226	7
1	231	7
1	236	8
ī	240	7
Ţ	245	7
1	249	6
I	254	6
1	259	5
1	264	5
I	268	4
I	273	4
I	277	4
I	282	4
ľ	286	3
ı	291	3
I	296	3
I	300	3
I	305	3
I	310	3
1	314	2
I	319	2 2
I	322	2
I	O	0

ROUND NUMBER - 137 PROJECTILE MASS (GM) - 5.832

PROJECTILE TYPE -S+W, JSP, 9MM PROJECTILE VELOCITY (MPS) -327.74

PROJE	CTILE DE	I CAVITY MEASUR	EMENTS		
CISTA			CRCSS-SECT AREA (MM**2)	I PENETRATION I DISTANCE (MM)	
	12	63	63	1 0	15
	40 	66	67	I 4	15
	75	60	61	I 9	16
	7	65	66	1 14	17
1.	42	60	61	1 18	18
				I 23	20
				I 28	21
				I 32	22
				1 37	22
300			T	I 41	22
300	ļ.	1 11		I 46	22
	Ì			I 51	20
				I 55	20
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Ω			!	I 69	19
لبا				I 74	18
500	-			1 78	18
Z.	1			I 83	18
ā	ļ	} '		I 88	18
			İ	I 92	18
	<b>⊢</b>			I 97	17
II.		( )		I 102	17
$\Omega$			i :	I 106	17
<b>—</b>				I 111	17
₩ 100	<b>—</b>			I 115	16
ابا	į		;	1 120	16
				I 125	15
ш.				I 129	14
50	<del> </del>			I 134	15
				I 139	15
				1 143	15
		. \ . (	1	I 148	15
٥	<u> </u>			I 152	14
	-102	50 O	58 188	I 157	14
•				I 162	14
	CAV	/ITY PRØF	I L. t.	I 166	14
				I 171	14
				I 176	14
				1 180	14
				I 185	14
				I 190	13
				I 194	13
				I 199	13
				I 203	12
				I 208	12
				I 213	11
				I 217	11

### RUUND NUMBER 137 CONTINUED

I	222	11
ſ	227	11
1	231	11
I	236	11
I	241	11
I	245	10
I	250	10
1	254	10
I	259	10
I	264	10
Ī	268	10
I	273	9
I	277	8
I	282	8
I	287	7
Ţ	291	7
Ţ	296	6
ľ	301	6
I	305	5
Į	310	5
I	315	5
I	319	5
Ţ	324	5
Ĭ	0	Ú

PROJECTILE TYPE -S+W, JSP, 9MM PROJECTILE VELOCITY (MPS) -417.53

PROJECTILE DE	FORMATION	*===========	I CAVITY MEASUR	 EMENTS
PENETRATION DISTANCE (MM) 17 50 87 120 153	PRESENTED AREA (MM**2) 87 96 106 80 78	CROSS-SECT AREA (MM**2) 67 96 109 80 78	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 22 I 27	21 23 25 28 30 32 33
300	T /		I 32 I 36 I 41 I 46 I 50	35 36 36 36 36
I 250 G. L.		_	I 55 I 60 I 64 I 69	35 34 33 32
200 -		-	T 73 I 78 I 82 I 87 I 92	33 33 33 32 32
H 150 H		_	I 96 I 101 I 105 I 110	31 31 30 30
100 – EN 100 – 50 –			I 115 I 119 I 124 I 129 I 133	29 29 28 28 28
7-100 -	L	50 100	I 138 I 142 I 147 I 152 I 156	27 27 27 26 26
CAV _	'ITY PROF		I 161 I 166 I 170 I 175 I 179	25 24 22 21 20
		3.31	I 184 I 189 I 193 I 198 I 202 I 207 I 212 I 216	19 18 17 16 15 15

#### ROUNC NUMBER 136 CONTINUED

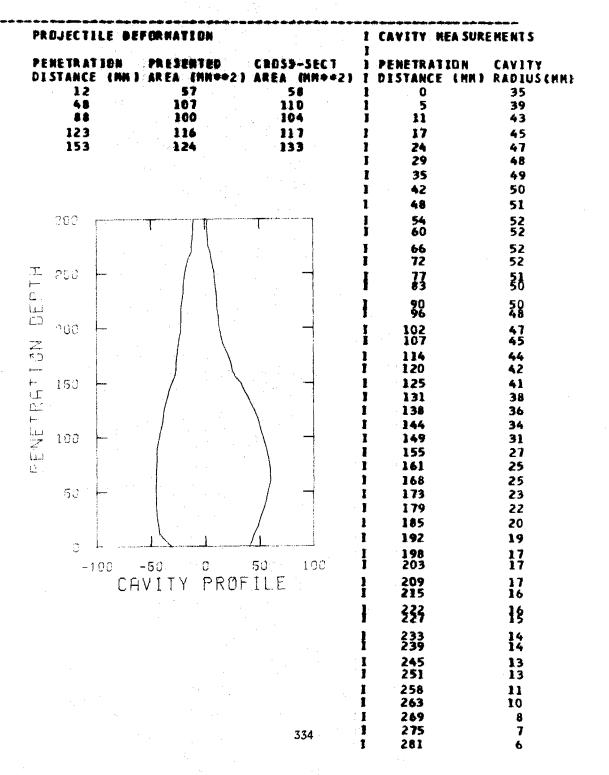
I	221	1.4
		14
I	226	13
I	230	13
I	235	13
Ĭ	239	13
τ	244	12
1	249	12
I	254	12
I	258	11
I	263	11
I	267	10
Ī	272	10
I	276	. 9
I	281	8
I	285	7
I	290	7
I	295	6
Ī	299	5
Ī	304	4
I	309	4
Ĭ	313	2

PROJECTILE TYPE -S+W. JSP. 9MM PROJECTILE VELOCITY (MPS) -474.77

PROJECTILE DE	FORMATION	CAVITY MEASUREMENTS		
PENETRATION DISTANCE (MM) 18 52 88 116 140	PRESENTED C AREA (MM**2) A 119 145 110 97 110	RCSS-SECT REA (MM**2) 119 145 123 107 116	I PENETRATION I DISTANCE (MM) I C I 4 I 9 I 14 I 18 I 23 I 27 I 32	CAVITY RADIUS (MM) 25 27 31 35 38 40 43
3 <b>0</b> C		Τ1	I 37 I 41 I 46 I 50	46 47 47 48
<u>∓</u> 250 ⊢ a.			I 55 I 60 I 64 I 69	48 49 49 48
GN DEF		· · · · · · · · · · · · · · · · · · ·	T 74 T 78 T 83 T 88	48 47 46 45
FD 150 -		-	I 92 I 97 I 101 I 156	43 42 41 39
198 –		\ -	I 111 I 115 I 120 I 125	37 35 34 32
Δ 50			I 129 I 134 I 138 I 143	31 29 27 25
-100	-50 °C	1	I 148 I 152 I 157 I 161	24 22 20 18
C	AVITY PROF	1 L L	I 166 I 171 I 175 I 180	17 15 14 13
			I 184 I 189 I 194 I 198	12 11 10 9
		333	I 203 I 208 I 212 I 214	8 7 6 4

PROJECTILE TYPE -S+N. JSP. 9HH

PROJECTILE VELOCITY (MPS) -462.52



# ROUND NUMBER 72 CONTINUED

1	287	6
1 !	293 299	6
1	305 312	5 4
I }	317	4 5
ł	327	5

PROJECTILE TYPE -S+W. JHP. .357 MAG PROJECTILE VELOCITY (MPS) -190.38

PROJECTILE DEFORMATION I						I CAVITY MEASUR	EMENTS		
CISTANCE (MM) AREA		PRESEN AREA (	MM**2)	AREA	S-SECT (MM**2)	PENETRATION CAVITY DISTANCE (MM) RADIUS (M)			
		19		59 50			59 50	I 0 I 5	8 14
		41		69			69	Î 11	*9
		60		64			64	1 17	11
		81		65			65	I 23	13
								I 29	14
			•					I 35	13
					-			I 41	12
							•	I 47	12
		200						I 53	12
		300	· · · · · · · · · · · · · · · · · · ·	*T			Ī	I 58	11
							ž.	I 64	11
							1	I 70 I 76	10
	.1	ಶಭವ	<u> </u>			:	_	I 76 I 82	10
	<u>-</u> -	, -			$\bigcap$		Ι.	1 88	10 10
	D.		ļ		<b>\</b> \ .		1	I 94	9
							1	Î 99	9
		200	-				. ——	I 105	ģ
	I SN							I 111	9
	ドン				1			I 117	9
	<del></del> '	4.5.0						I 123	9
	TRBT	150			1 1			I 129	9
	24						1	I 135	10
	<b>←</b> ~						ĺ	I 141	10
	ш) <b>2</b> :	190	L				<b></b> ∔	I 147	9
	2. LL	100			{ - }			I 152	9
	Ü				} {			I 158	8
	-				1		1	1 164	8
		50	-					I 170	8
							1	176	8
				\	\ /		i '	I 182 I 188	8
				j .	215	ł		I 194	8 8
		9	L	4	<b>Name</b>			200	8
		- 1	00	-50	0	5 J	100	205	8
			CA	VITY	PROF	I L.E		211	8
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							1		6
							1	[ 229	6 5
							]	I 235	4
					•			I 2 <b>3</b> 8	4
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		٠,						r 0	0
							# # F		

PROJECTILE TYPE +S+W. JHP. .38 SPEC PROJECTILE VELOCITY (MPS) -2249.93 PROJECTILE DIAMETER (CM) - .907

PROJECTILE DE	FORMATION	I CAVITY MEASUR	EMENTS	
		) AREA (MM**2)	I PENETRATION I DISTANCE (MM)	
5 2 <b>3</b>	58 8 <b>7</b>	58 8 <b>7</b>	I 0 I 4	11 11
45	84	84	[ 9	14
έ7	102	ารั้	1 14	18
88	84	84	I 18	19
•	- <del>"</del> '		Ī 23	22
			I 28	23
			[ 32	24
			I 37	24
000			I 42	24
300	T		T 46	2.4
			I 51	24.
			I 56	24
I 250 -			i 61	24
ł			I 65 I 70	23 22
(λ.	) ]		1 75	21
			1 79	20
200			1 84	20
N O			1 89	19
50	} }		I 93	18
F 150 -		4	I 98	16
T 130			I 103	15
<u>ac</u>	/ \		I 108	14
<del> </del>	/	\ \	I 112	1.5
물 100 -	/ \	1	[ 117	12
لتا			I 121 I 126	11 13
$\overline{\Delta}$	/	1	I 131	9
		i	I 135	8
50	)	1	I 140	8
			I 145	7
:			1 150	7
o L	1 11		I 154	6
-100	-50 0	50 100	1 159	6
	VITY PROF		[ 164	5
LH	ATTA LEGIS	1 L. L	1 168	5
			I 173 I 178	<b>5</b>
			I 178 I 182	5
			1 187	5
			I 192	5 3 5
			197	5
			I 201	5
			I 206	5 5
		~ ~ 7	1 211	4
			1 215	5
			1 220	4

#### UUND NUMBER 125 CONTINUED

1	225	5
Ī	229	6
1	234	5
I	238	4
Į	0	U
Į	0	0

PROJECTILE TYPE -S+W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -235.73

			I CAVITY MEASUR	EMENTS	
6		PRESENTED AREA (MM**2) 56	AREA (MM**2) 56	I PENETRATION I DISTANCE (MM) I O	9
24 49 71 94		55 62 58 55	62 60 56	I 6 I 12 I 17 I 23 I 30 I 35 I 41	10 13 16 19 20 20
300		T .	·	I 47 I 53 I 59 I 65 I 71 I 77	21 19 19 18 17
H 250 A. H D 200				I 83 I 89 I 95 I 101 I 107	15 15 13 11
NO I 150				I 113 I 118 I 124 I 130 I 136	10 9 9 9 8
PENET 100			-	I 142 I 148 I 154 I 160 I 166	8 8 8 8
50 0				I 172 I 178 I 184 I 190 I 196	8 7 7 7 7
	00 CF	-50 0 RVITY PRØF	50 100 FILE	I 202 I 207 I 213 I 219 I 225 I 227 I 230 I 232	7 6 5 5 5 4 4 3

PROJECTILE TYRE -S+W, JHP4 .357 MAG PROJECTILE VELOCITY (MPS) -260.74

PROJECTILE DEFORMATION			I CAVITY MEASUR	EMENTS
PENETRATION D)STANCE (MM) 7 28 55 81 108	PRESENTED AREA (MM**2) 57 98 109 109	99 - 109 - 113	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29	CAVITY RADIUS (MM) 11 14 17 19 21 22
## \$50 300		<del></del>	I 35 I 41 I 47 I 53 I 59 I 65 I 71 I 77 I 83 I 88 I 94	22 22 21 20 19 17 17 17 16 15
150 L 150 L			I 100 I 106 I 112 I 118 I 124 I 130 I 136 I 142 I 148 I 154	15 15 14 13 14 14 14 14 14
5J - 100 CA		50 10C	I 160 I 165 I 171 I 177 I 183 I 189 I 195 I 201 I 207 I 213	10 9 9 7 7 7 6 6 5
		340	I 219 I 225 I 231 I 236 I 242 I 248 I 254 I 260 I 266 I 272 I 278	565555544

## RCUND NUMBER 115 CONTINUED

I	284			4
I	290	٨	. *	` 3
I	296			4
I	302			4
I	308			4
I	314			4
I	316			4
1	317			3
I	. 0			· ō

PROJECTILE TYPE -S+W, JMP4 -38 SPEC PROJECTILE VELOCITY (MPS) -264-81

 PROJECTILE DI	FORMATION	I CAVITY MEASUR	EMENTS	
PENETRATION CISTANCE (MM) 7 28 56 82 110	PRESENTED AREA (MM**2) 62 117 126 71 63	CROSS-SECT AREA (MM**2) 62 117 126 71 63	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 19 I 23 I 28	CAVITY RADIUS (MM) 14 15 17 19 22 23 24
300 FILE 300	-50 O VITY PROF	50 100 ILE	151 155 160 165 169 174 179 184 188 193 198 203 207 212 217	24 23 22 20 19 18 17 16 14 13 12 12 11 10 9 9 9 9 9 9 9 9 9 9 9 9 9 9 8 8 8 9 9 9 9 9 8 8

1	231	8
1	235	8
I	240	8
ſ	245	8
I	250	8
1	254	 7
ľ	259	7
I	264	7
1	269	.6
I	273	6
1	278	6
ľ	282	6 6
Ī	287	6
I	292	5
I	297	5 4 4 4
I	301	4
I	306	4
I	311	4
I	316	4 5
I	320	5
I	325	5
I	327	5 0
I	0	Ü
Ĭ	0	0

PROJECTILE TYPE -S+W. JHP. .38 SPEC PROJECTILE VELOCITY (MPS) -296.21

			I CAVITY MEASUREMENTS	
PENETRATION Distance (MM)	PRESENTED AREA (MM++2) 59	CROSS-SECT	PENETRATION DISTANCE (MM)	CAVITY RADIUS(MM) 16
32	64	64	0 1 4	17
6 <del>4</del> . 93	54 64	54 64	I 9 I 14	20 22
123	55	55	18	24
		]	23	25
			I 27 I 32	26 26
			37	25
300		]	• •	25
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				21
工 p50			60	21
<del></del>		]		20 20
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200			79	20
Z				20
50				20 20
H 153		, _ i	97	19
L. I	1 4 1			19
				19 18
				17
190				17
				17 16
ļ				15
50		1	139	15
		I	144	14
		<u> </u>	148 153	14 14
0 4	50 0	50 10C	158	13
		- "		13
CA'	VITY PROF	LLE	167 172	13 13
militaria. Tanàna		· i	176	12
		I		12 12
		I	186 190	12
		. 1		12 11
		ī	200	10
	•	I		10
		344 I		9 9
		î	218	8

### ROUND NUMBER 124 CONTINUED

I	223		8
I	2 <b>2</b> 8		7
1	- 232	: 1	7
I	237		7
I	241		7
I	246	F	7
Ī	251		7
I	255		7
I	" 260 ·		6
I	265		6
I	269		6
1	274		5
I	279		5
1	283		5 5 5
1	288		5
I	293		5
I	297		5
I	302		5
I	307		5
i	311		5
I	316		5
1	320		5
I	325		5
Ī	326		5

ROUND NUMBER - 114

PROJECTILE TYPE -S+W. JHP. .357 MAG PROJECTILE VELOCITY (MPS) -311.02

PROJECTILE DEFORMATION				I CAVITY MEASUR	EMENTS
	ENETRATION ISTANCE (MM)	PRESENTED AREA (MM**2) 67	) AREA (MM**2)	I I PENETRATION I DISTANCE (MM) I O	CAVITY RADIUS(MM) 15
	34	110	110	I 5	18
	64	104	113	1 11	23
	90	133	133	17	26
	115	129	1,33	I 23 I 29	28 30
				1 27 1 35	30
				I 41	31
				I 47	30
	300			I 53	30
		i i		I 58	30
				I 65	31
· <del>T-</del>				I 70	30
Ι <u>.</u> Δ.	200 <del>-</del> .			I 76	29
Ω		(· (	1	I 82	28
	} ,			I 88 I 94	26 26
<u> </u>	200		· · · · · · · · · · · · · · · · · · ·	1 100	25
Z				I 106	24
ETTÖN		/ /		112	23
		<i></i>		1 117	22
— — — — — — — — — — — — — — — — — — —	150	I = I		1 124	21
			)	I 129	18
<u>n</u>				1 135	16
111 2	190 -		i '	I 141 I 147	16
ک نیا				I 147 I 153	15 14
ū			•	I 159	12
			4	1 165	11
	5J -		-	171	10
		1		I 177	8
				I 182	8 7
	s <u>L</u>			I 188	
				194	6
		50 0		I 200	5 5 5 4
	CA'	VITY PROF	( ) (T	I 206 I 212	) E
			3	1 212 I 218	5 4
				I 224	4
				1 230	4
				I 236	4
		•		I 239	
				I 241	3
	1.			1 242	4 3 2 0
			•	0	O
			346		

PROJECTILE TYPE -S+W. JHP4 .357 MAG PROJECTILE VELOCITY (MPS) -341.32 PROJECTILE DIAMETER (CM) - .907

PR	OJEGTILE	DEFORMATION	·	I CAVITY MEASUR	EMENTS
	NETRATIO STANCE ( 13 39 70 97 123		*2) AREA (MM**2) 95 148 149 183	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35 I 41	CAVITY RADIUS (MM) 19 21 24 29 31 33 34
	300			I 47 I 53 I 59 I 64 I 70	36 36 36 35 34
EPTH	250	$\bigcap$		T 76 I 82 I 88 I 94	34 32 30 30
1 0N D	200			I 100 I 105 I 111 I 117	28 28 26 25
ETRAT	150			I 123 I 129 I 135 I 141	25 23 22 19
P E N	50			I 147 I 153 I 158 I 164 I 170 I 176	16 14 14 12 11
	o L		100	I 182 I 188 I 194 I 200 I 206	9 8 7 6
	1	CAVITY PR		I 212 I 217 I 223 I 229 I 232 I 234	6 5 5 4 3

PROJECTILE TYPE -S+W, JHP4 .357 MAG PROJECTILE VELOCITY (MPS) -341.70

PROJECTILE DEFORMATION	I. CAVITY MEASUREMENTS
PENETRATION PRESENTED CRCSS-SECT CISTANCE (MM) AREA (MM**2) AREA (MM**2) 12 93 93 37 143 143 68 146 147	I 0 18 I 5 22
68 146 147 94 150 151 120 143 143	I 11 26 I 17 30 I 23 34 I 29 36 I 35 37 I 41 37
300	I 47 37 I 53 38 I 59 37 I 65 36 I 71 35 I 77 34
E 200	T 83 33 I 88 32 I 94 31 I 100 31 I 106 29 I 112 27
上 150 —	I 118 24 I 124 23 I 130 22 I 136 21 I 142 20
100 - ( ) -	I 148 17 I 154 16 I 160 16 I 166 13 I 172 12 I 178 11 I 184 10
-100 -50 C 53 190 CAVITY PROFILE	I 189 9 I 195 8 I 201 7 I 207 6 I 213 5
	I 219 5 I 225 5 I 231 5 I 235 5 I 237 4

PROJECTILE TYPE -S+W, JHP, .30 SPEC PROJECTILE VELOCITY (MPS) -394.31
PROJECTILE DIAMETER (CM) - .907

PROJECTILE DE	FORMATION	J CAVITY HEA SUREMENTS		
PENETRATION DISTANCE (MM) 19	PRESENTED AREA (MM++2) 110		I PENETRATION I DISTANCE (MM)	CAVITY RADIUS(MM) 24
48	113	113	I 5	28
82	115	116	1 11	33
111 138	106 109	106	1 17	37
130	107	109	I 23 I 29	40 43
			I 35	45
			1 40	47
			1 46	47
			1 52	47
300		T	1 58	47
			1 64	46
			1 69	44
I 250		4	1 75	42
王 250 上			I 81	41
Δ_	1 \		1 87	40
<u> </u>	/ \		93	37
C 200	/ \	. =	I 99	35
:			I 105 I 111	34
N O				34
<b>→</b>			1 112	33
DENE TRA 100 - 120	/	٦	I 128	29
2			I 134	27
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ш , <sub>00</sub> _	)	<b>→</b> '	l 139 l 145	24
岁 100	)		I 151	23
ň	}	\	1 157	22
11.			1 163	22
50		1 1	1 169	21
		1	I 174	19
	\ /	' I	I 180	16
		. 1	I 186	14
0 1			I 192	13
-100	-50 C	La11 [11]	I 198 I 204	11 10
	VITY PROF	TIF .	I 209	10
C C	IVI I I IVOI		1 215	8
		•	I 221	
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•			1 227 1 233	6 6
			J 239	
			, 239 1 245	6 6
			i 250	4
			i 0	õ
		J47		_

PROJECTILE TYPE +S+N. JHP. .357 MAG PROJECTILE VELOCITY (MPS) -526.42

PROJECTILE DIAMETER (CM) - .907

	PROJECTILE DE	FORMATION	CAVITY MEA SUREMENTS		
PENETRATION DISTANCE (HM 25		PRESENTED CROSS-SECT AREA (MM++2) AREA (MM++2)		PENETRATION DISTANCE (MM)	CAVITY RADIUS (MM)
	5 <b>9</b>	131	151	1 15	48 53
	124	139	189	1 23	<b>2</b> 3
			·	1 29 1 35	65 67
				1 41	68
	222		1	1 46	68
	300	T	T	1 52 1 58	68 68
				64	67
				70	66
	프 250 <u>-</u>			I 76 I <b>8</b> 2	65 63
	E 250 -			88	60
	H H	. / \		94	56
	c'Ui			99	54
	Z 50			l 105 l 111	51 48
	t   .	$\int_{\mathbb{R}^{n}} dx = \int_{\mathbb{R}^{n}} dx$		1 117	43
	<u>+</u> 150		j		40
	<del>-</del>			1 129 1 135	35 32
	100			141	29
	Z. 133		\	I 147 I 152	27 24
	ŭ. <i>I</i>		. 1	158	21
		ř		164	20 18
	50 <del> </del>	· ·			
		\		l 176 l 182	16 14
	_	<b>)</b>	<b>⋌</b> i	188	12
	g F			194	10
	-100	-53 0	50 100 j	• • • •	10
	CF	(VITY PROF	ILE		9 8
				217	7
				223	7
			] 1		6
					6 2

PROJECTILE TYPE -S+W. JHP. .38 SPEC PROJECTILE VELOCITY (HPS) -165\_29
PROJECTILE DIAMETER (CN) - .907

PROJECTILE DE	FORMATION	I CAVITY HEASUR	EMENTS	
PENETRATION DISTANCE (MM) 20	PRESENTED CI AREA (MM++2) AI 56	ROSS-SECT Rea (MM+42)	I I PENETRATION I DISTANCE (MM) I O	CAVITY RADIUS (MM)
37 56	50	50	į š	11
26	59	59	1 11 1 17	. 7 9
	· ·		i 23	9
			i 29	9
			I 34 I 40	8
		!	1 46	8 7
303 <sub>F</sub> -			52 58	7
	1 1		I 63 I 69	7 7
T- 250 -			1 75 I 81	7 7
£ .	7		87	7
EB PBC L	) )		99 1 104	7
Z !D		7	110	8 9
<del></del> !		77		9
± 150 <del> </del>				9 9
er H		, ,	133	9
<del> </del>				9 10
₩ 100 H		i		11
<b>□</b>			163	11
9				10 10
50 H				9
		1	186	7
	, }, }			7
3 <sup>L</sup> .	$\mathbf{L} = \{\{\mathbf{L}\}\}^{2} = \{\{\mathbf{L}\}\}^{2}$		***	6 5
	5J : 50	108	209	5 5 4
CAV	ITY PROFILE	1 1		
		- 1		4 5 4 3 2
		j	230	4
		1		3

PROJECTILE TYPE -SAW, JHP, .38 SPEC PROJECTILE VELOCITY (MPS) -191.46
PROJECTILE DIAMETER (CM) - .907

PROJECTILE DEFORMATION I				I CAVITY HEASUR	EHENTS
	NETRATION STANCE LHN 1	PRESENTED AREA (HM++2 56	CROSS-SECT 2) AREA (HH**2) 56	J J PENETRATION J DISTANCE (MM) J O	CAVITY RADIUS (MM) 8
	20	47		i 5	12
	43	64	64	1 11	9
	63 86	62 54	64 56	I 17 I 23	10 11
				I 29	13
				1 35 I 41	13 12
				i 46	ii
	300	· · · · · · · · · · · · · · · · · · ·	~ · · · · · · · · · · · · · · · · · · ·	\$ \$2	11
				I 64 I 70	10 10
				I 76	10
T.	200		-	I 82	11
<u>[]</u>				1 88	12
أحنط				] 94 I 99	12 12
€.0	ຄນວ 🗕		-	I 105	11
ZZ				1 111	11
50				I 117 I 123	11 10
ļ	150			1 129	10
Œ,	200			1 135	10
<u>01</u>				I 140	9
i ul 27	100 -		_	I 146	9
ZŽ U. L	100			I 152	9
ш. <u>С</u>			•	1 158 1 164	8 8
	50 <del> </del>			I 170 I 176	7
	·		: ,	1 182 1 188	6
	e L	1 } }		183	§
		-50 0	53 190	I 205	<b>&gt;</b>
				. 203 I 211	4
	LH	VITY PRO		1 217	4
				1 223	4
				I 229 I 235	4
				I 241	4
			•	1 246	4
				1 249	3
				1 251	1

PROJECTILE TYPE -S+W. JHP, .357 MAG PROJECTILE VELOCITY (MPS) -209.48
PROJECTILE DIAMETER (CM) - .907

PROJECTILE DEFORMATION					CAVITY HEASE	IREMENTS
	PENETR DISTAN	ATION CE (MM)	PRESENTED AREA (MM+2)	CROSS-SECT AREA (MN++2)	1 PENETRATION I DISTANCE (MA	CAVITY
	2	4	57 78	57 79	I 0 5	7 13
	4		70 71	71	i n	10
	6	-	89	89	i 17	12
	8		83	83	I 23	14
					1 29	16
					1 35	17
					1 41	17
	300	Г	T	7	1 47 1 52	16 15
			·		) 32 ] 58	15
					i 64	12
T	250				1 70	11
⊢					I 76	11
E LL					1 82	12
<u> </u>	٦		$\cap$		1 88	11
	200	-	. \ \		1 100	9 9
Z F <u>i</u>	5		) \		1 106	8
<del></del>			1		1 112	8
r CI	1.00	-			1 132	8 8
$\Omega$					1 130	8
<b>⊢</b>					I 135	8
li. Z	100	<u> </u>		<u> </u>	1 141	8
Li.	.3		1 )		1 147	8
Ω.			/ \		1 153 1 159	. 7
	<i>5</i> J	L			1 159 1 165	7
	) (				1 171	7
		į	\ /		1 177	\ <b>6</b>
		1	\ , \	1	J 183	6
	Ģ	L 1	\_\_\/	1	I 188	5
	· ·	100 -5	J 0 5	50 18C	1 195	5 5
		CAV			1 200	5
		∪ n v	TILLINUL.		I 206 I 210	5 4
					1 212	2
					I 0	0

PROJECTILE TYPE -S-W. JHP. .357 HAG PROJECTILE VELOCITY (MPS) -250.25 PROJECTILE DIAMETER (CH) - .907

26 115 116 I 3 20 52 119 120 I 5 16 76 102 102 I 11 15 102 58 59 I 17 18 1 23 20 1 29 23 I 355 23 I 41 23 200 I 47 23 I 53 21 I 53 21 I 53 21 I 53 21 I 53 21 I 53 21 I 53 21 I 53 21 I 53 21 I 59 19 I 77 15 I 83 14 I 89 13 I 95 11 I 107 11 I 108 7 I 148 8 I 148 8 I 154 8 I 1	PROJECTILE	EFORMATION	-	I CAVITY HEASUR	EMENTS
26 115 116 1 3 20 52 119 120 1 5 16 76 102 102 1 11 15 102 58 59 1 17 18 1 23 20 1 29 23 1 35 23 1 41 23 20 1 47 23 1 53 21 1 53 21 1 53 21 1 53 21 1 53 21 1 53 21 1 53 21 1 53 21 1 59 19 1 65 18 1 71 17 1 89 13 1 89 13 1 95 11 1 100 1 11 1 107 11 1 107 11 1 107 11 1 107 11 1 107 11 1 107 11 1 107 11 1 107 11 1 107 11 1 100 1 11 1 107 11 1 100 1 11 1 107 11 1 100 1 11 1 1	DISTANCE (MM	) AREA (MM++2 60	) AREA (MM+42)	I DISTANCE (MM)	RADIUSCHMI
76 102 58 59 1 17 18 1 23 20 1 29 23 1 35 23 1 41 23 20 1 53 21 1 59 19 1 65 18 71 17 18 1 83 14 17 18 1 89 13 1 95 11 107 11 11 107 11 11 11 11 11 11 11 11 11 11 11 11 11	26			1 3	20
102					
300  300  1 29 20  1 35 23  1 41 23  1 47 23  1 59 19  1 65 18  71 17  1 77 15  1 89 13  1 95 11  1 107 11  1 107 11  1 1107 11  1 1107 11  1 113 11  1 125 10  1 136 9  1 143 8  1 148 8  1 154 8  1 154 8  1 154 8  1 154 8  1 154 8  1 154 8  1 154 8  1 154 8  1 154 8  1 154 8  1 154 8  1 154 8  1 154 8  1 154 8  1 154 8  1 154 8  1 154 8  1 154 7  1 166 7  1 172 7  1 178 7  1 184 7  1 190 7  -100 -50 0 50 190 1 200 7  CHVITY PROFILE  1 208 7  1 238 7  1 238 7  1 238 7  1 256 7  1 256 7  1 256 7  1 256 7  1 256 7		_	— — <del>-</del>		
29   23   35   23   1   41   23   23   23   24   268   5	102	70	<b>27</b>		
300    1		2			
360  T- 260  T				1 35	23
I 53 21 19 19 1 65 18 17 17 17 15 18 3 14 18 9 13 14 19 11 11 11 11 11 11 11 11 11 11 11 11					
I 59 19 I 65 18 I 77 15 I 83 14 I 89 13 I 107 11 I 107 11 I 113 11 I 125 10 I 136 9 I 148 8 I 148 8 I 154 8 I 166 7 I 172 7 I 178 7 I 178 7 I 178 7 I 178 7 I 184 7 I 190 7 I	300				
Total   Tota		1			
The state of the s					
1 77 15 18 3 14 19 19 11 11 11 11 11 11 11 11 11 11 11	I and L	[ ]			
1 83	ļ		7		
1 89 13 11 11 11 11 11 11 11 11 11 11 11 11	Δ		ĺ		
1 101 11 11 11 11 11 11 11 11 11 11 11 1	- n - 1				
150 113 113 110 1135 100 1136 9 1143 8 1148 8 1154 8 1166 7 1172 7 1178 7 1184 7 1190 7 1190 7 1190 7 1190 7 1214 7 1220 7 1220 7 1226 7 1226 7 1238 7 1244 7 1256 7 1354	200 <del> -</del>			I 95	
150 1 125 1 100 1 131 9 1 136 9 1 148 8 1 148 8 1 154 8 1 160 7 1 172 7 1 178 7 1 178 7 1 190 7 -100 -50 0 50 190 1 202 7 CAVITY PROFILE 1 208 7 1 220 7 1 226 7 1 226 7 1 238 7 1 244 7 1 256 7 354	z S			) 101 1 107	11 11
1 131 9 1 136 9 1 143 8 1 148 8 1 154 8 1 160 7 1 166 7 1 172 7 1 178 7 1 184 7 1 190 7 1 190 7 1 190 7 1 1202 7 1 208 7 1 220 7 1 226 7 1 238 7 1 244 7 1 250 7 1 256 7 354 1 262 5	+ 150 <b>-</b>		. 4		
1 143 8 8 1 154 8 1 160 7 1 166 7 1 172 7 1 178 7 1 184 7 1 190 7 1 19	$\Omega$ <sup><math>^{\prime}</math></sup>				9
1 154 8 1 154 8 1 160 7 1 166 7 1 178 7 1 184 7 1 190 7 1 190 7 1 190 7 1 120 7 1 202 7 1 214 7 1 220 7 1 238 7 1 244 7 1 256 7 1 256 7	i, i		<u>-</u>	T 143	8
I 160 7 I 166 7 I 172 7 I 178 7 I 184 7 I 190 7 I 190 7 CAVITY PROFILE I 208 7 I 214 7 I 220 7 I 232 7 I 238 7 I 244 7 I 256 7 I 256 7	Lus				
1 166 7 1 172 7 1 178 7 1 184 7 1 190 7 -100 -50 0 50 100 1 202 7 CAVITY PROFILE 1 208 7 1 214 7 1 220 7 1 238 7 1 244 7 1 250 7 1 256 7	Ω	$-1$ $\sqrt{2}$			
I 172 7 I 178 7 I 184 7 I 190 7 I 190 7 CAVITY PROFILE I 208 7 I 214 7 I 220 7 I 232 7 I 238 7 I 244 7 I 256 7 I 256 7 I 256 7					-
I 178 7 I 184 7 I 190 7 I 190 7 CAVITY PROFILE 1 208 7 I 214 7 I 220 7 I 232 7 I 238 7 I 244 7 I 256 7 I 256 7 I 256 7	70				<del>-</del>
T 190 7  -100 -50 0 50 190 I 196 7  CAVITY PROFILE I 208 7  I 214 7  I 220 7  I 238 7  I 238 7  I 244 7  I 250 7  I 256 7  I 256 7		- · · · ( ) · · · / · · /			
-100 -50 0 50 190 I 196 7 CAVITY PROFILE I 208 7 I 214 7 I 220 7 I 226 7 I 232 7 I 238 7 I 244 7 I 250 7 I 256 7 I 256 7		, ) (			7
CAVITY PROFILE 1 208 7 1 214 7 1 220 7 1 226 7 1 232 7 1 244 7 1 250 7 1 256 7	3 · F	<u> </u>			-
CAVITY PROFILE 1 208 7 1 214 7 1 220 7 1 226 7 1 232 7 1 244 7 1 256 7 1 256 7 1 256 7 1 256 7 1 256 7 1 256 7 1 256 7 1 256 7 1 256 7 1 268 5	-100	-50 0	50 190		•
1 214 7 1 220 7 1 226 7 1 232 7 1 238 7 1 244 7 1 250 7 1 256 7	C A				· -
1 220 7 1 226 7 1 232 7 1 238 7 1 244 7 1 250 7 1 256 7	0,1	VI I I I I I I I I I I I I I I I I I I	A har has		<u>'</u>
1 226 7 1 232 7 1 238 7 1 244 7 1 250 7 1 256 7				_ <del>-</del> -	7
1 238 7 1 244 7 1 250 7 1 256 7 354 1 262 5					7
1 250 7 1 256 7 354 1 262 5					7
354					
			354		
1 273 5			•		5 5

1	276	5
I	277	5
1	279	4

PR	OJECTILE DE	FORMATION	I CAVITY HEASUREHENTS		
	NETRATION Stance (MM)	PRESENTED AREA (MM++2) 58	CROSS-SECT AREA (MM # 42) 58	PENETRATION DISTANCE (MM)	CAVITY RADIUS (MM) 13
	2 <b>8</b> 5 5	131	131	15	14 16
	172	131	138	1 13	19
				1 29 34	25 26
				1 40	26
			·	l 46 l 52	25 24
	300 F		7	58 1 64	24 23
		,		69 75	22
.17	253			81	21 20
⊢- L	, 500			i 87 i 93	18 17
			1	99 104	16 16
z	506 -		-	110	16
Ó				116 122	15 14
-	150		i	128	13
T T			i	<b></b> -	12 10
ZH.	100		- I	145 151	10 10
د.ایا			ł	123	8
<u>17</u> .				168 174	7 7
	50	(.	1	180	7
			i	192	6 6
	g L		50 190	198 203	5 5
	-100 CF	-50 0 Avity Prøf	I	209 215	4 4
	٠,١	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ľ	221 227	4
			1	232	4 4
			1	239 <b>24</b> 2	4 4
			I	245 247	5
			356	671	3

PROJECTILE TYPE -S+N. JHP. .357 MAG PROJECTILE VELOCITY (MPS1 -278.61 PROJECTILE DIAMETER (CM) - .907

PROJECTILE DE	FORMATION	CAVITY HEASUREHENTS		
PENETRATION DISTANCE (HM) 7 30 60 89 118	PRESENTED AREA (MM**2) 55 64 61 69 60	55	I PENETRATION I DISTANCE (MM I 0 I 5 I 11 I 17 I 23 I 29	11 13 17 20 22
300 - T		-	1 29 1 35 1 41 1 58 1 64 1 70 1 76 1 82 1 88 1 94	22 22 21 20 20 19 18 17 17
E 200 - NO 1 150 - E E E E E E E E E E E E E E E E E E			I 100 I 106 I 112 I 117 I 123 I 129 I 135 I 141 I 147 I 153	16 15 14 13 13 13 12 12 12
53 <del> </del>	L SO C PROF		1 159 1 165 1 171 1 177 1 188 1 194 1 200 1 206 1 212	12 12 10 10 10 10 10
الدر		357	218 1 224 1 230 1 236 1 241 1 247 1 253 1 259 1 265 1 271	9 8 8 8 8 8 7 7

#### ROUND NUMBER 98 CONTINUED

ł	283	6
1	294 300	6 5
1 1	306 312	5 4
I	318	4
1	321	3
1	322	2

PROJECTILE TYPE -S+W. JHP. .38 SPEC PROJECTILE VELOCITY (MPS) -303.28
PROJECTILE DIAMETER (CM) + .907

PROJECTILE 1	DEFORMATION	I CAVITY HEASU	REMENTS	
PENETRATION DISTANCE (M		CROSS-SECT ) AREA (MM++2)	PENETRATION I DISTANCE IMM	
10	63		1 0	17
32	138	139	\$ 5	19
61	142	• • •	I 11	23
87	149	149	1 17	27
111	146	148	1 23	30
			1 29	33
			1 35 1 41	34 34
			1 47	34
			1 52	33
300 ←	- T		1 58	32
	'	,	1 64	32
			I 70	30
			1 76	29
- I 250 H			1 81	28
Γ;			1 87	27
ii.i	$\bigcap$		I 93	26
200 <u></u>			I 99	25
7.00 2.00	/ \		1 105 1 111	24 23
<del></del>			1 139	<b>3</b> 8
⊬: 153 <del> </del> Œ			1 128	19
<u>a</u> .	1		i 134	18
+		\	1 140 1 145	16 15
불 198 <b>-</b>			1 151	13
بيا			1 157	11
5	/	· .	1 163	10
50			1 169	9
;		}	1 174 1 181	9 7
	\		1 186	6
	1 1.4	/	1 192	6
0 4			1 198	5
-100	-50 0	50 194	J 204	5
-, 1-2	CAVITY PR	OFILE	1 210	5
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-	1 216	5
			1 221	4
			I 223	2
			3 0	0
			1 0	0

PROJECTILE TYPE:-S+N. JHP. .357 MAG PROJECTILE VELOCITY (MPS) -306.64

PROJECTILE DIAMETER (CM) - .3907

PRO	PROJECTILE DEFORMATION 1					I CAVITY HEAS	UREMENTS	
	NETRAT STANCE 9 34 67 97 129	IGN (MM)	PRESEN AREA L 55 54 54 50	MM##2}	CROSS-AREA 55555555555555555555555555555555555	(MM++2) 5 4 5 5	PENETRATION  I DISTANCE (M)  I 0 5 I 11 I 17 I 23 I 29 I 35 I 41	CAVITY H) RADIUSEMH1 13 17 20 23 25 27 27
	300		<del></del>	1	T		1 47 I 53 I 58 I 64 I 70	27 26 24 23 24
	250						1 76 1 82 1 88 1 94	24 23 21 21
	200				· .		1 100 1 106 1 112 1 123	19 20 19 16
TRATI	150						I 129 I 135 I 141	17 17 17 15 15
PENE	100		{				I 147 I 153 I 159 I 165 I 170	15 14 14 14 14
	50	_					1 176 I 182 I 188 I 194	15 14 14 13
	0 -1	CF	-50 IVITY	o PRØF	50 FIL.E	100	1 200 1 206 1 212 1 218 1 224	12 11 12 12 12
							I 230 I 235 I 241 I 247 I 253	12 11 11 10 10
		. ′				360	1 255 1 271 1 276	10 9 9

#### ROUND NUMBER 97 CONTINUES

•	282	9
1	288	8
I	2 <del>94</del>	7
1	300	6
1	306	6
I	312	5
]	316	6
ł	318	4

PROJECTILE TYPE -S+W, JHP, .38 SPEC PROJECTILE VELOCITY (NPS) -329.16
PROJECTILE DIAMETER (CM) - .907

PROJECTILE D	EFERFATION	1 CAVITY MEASUREMENTS		
PENETRATION DISTANCE (MM 15 39 69 95	PRESENTED 3 AREA (MM##2 89 199 177 204 188	CRUSS-SECT 2) AREA (MM+#2) 89 199 179 204 189	PENETRATION DISTANCE [MM] O D D D D D D D D D D D D D D D D D D	CAVITY RADIUS (HM) 21 23 27 31 34 37 38 39
300	<del></del>		I 46 I 52 I 58 I 64	39 40 39 38
E 250 -	$\cap$	_	I 69 76 I 81 I 87	38 36 34 30
200		-	1 99 1 105 1 111 1 116	28 28 27 25 25
150			1 123 1 128 1 134 1 140	24 21 20 19
100			I 146 I 152 I 158 I 163 I 169	17 15 13 13
0			1 175 1 181 1 187 1 193	12 11 10 8
-100 C F J	-50 C RVITY PROI	50 100 FILE .	I 198 I 204 I 210 I 216	7 7 6 5 5
			1 222 1 334 1 227	5 5 4 3

PROJECTILE TYPE -S+H. JHP. .357 MAG PROJECTILE VELOCITY (MPS) -355.24 PROJECTILE DIAMETER (CM) - .907

PROJECTILE DE	FORMATION		CAVITY HEASUR	EMENTS
PENETRATION DISTANCE (HM) 11 39 75 108 141	PRESENTED AREA (MM**2) 84 58 60 57 63	CROSS-SECT AREA (MM**2) 1 84 58 60 57 65	I PENETRATION I DISTANCE (MM) I O STANCE (MM)	CAVITY RADIUS (MM) 18 21 25 28 31 32 33
300 PED 300 PE		-	46 52 58 64 70 75 81 87 93 99 105 110 116 122 128 134 140 145 151 157 163 163 169 175 180 186 192 198 204 210 215	32 32 31 30 29 29 28 26 25 25 25 22 21 20 19 19 18 18 16 15 12 12
		363 363	227 233 239 245 251 257 262 268	10 9 9 9 9 8 8 7 7

### ROUND NUMBER 96 CONTINUED

I	280	7
I	28 <b>6</b>	8
1	297	5
1	303	6
1	309	6
ŀ	311	6 5
1	315	2
I	315	1

PROJECTILE TYPE -S+W. JHP, .357 MAG PROJECTILE VELOCITY (MPS) -387.29
PROJECTILE DIAMETER (CH) + .907

PROJECTILE D	EFORPATION		I CAVITY MEASUR	EHENTS
PENETRATION DISTANCE (MM	PRESENTED  1 AREA (MM**2		, I PENETRATION I DISTANCE (MM)	CAVITY RADIUSTHMI
13	105	105 126	1 0 1 5	23 26
42 77	126 123 128	126 124 129	1 11	31 36
106				36 40
133	121	121	1 23	42
			1 35 1 41	44 44
			3 47	44
			1 53	44
0.00			3 58 3 65	44 42
300	T	Γ	1 70	42
			I 76 I 82	42 41
I one L	ſ <sup>* -</sup> 1		1 62 I 88	40
ł			1 94	38
۵.	/ /		1 100	37 36
200			I 106 I 112	34
Z	/ \		1 118	32
KD		:	1 124 1 129	30 27
F 150 F			1 135	26
CE 1			1 141	24
+-		i	1 153	<b>2</b> 2
별 198 <b>년</b>		$\setminus$ $\rightarrow$	1 153	31
LLi ,	/			20 18
<u>D</u> .			I 170 I 177	16
5.) F		. ] -	182	13
			I 188 I 194	11 10
			I 200	9
g I.	L	/ . 1	1 206	8
-100	-50 0	50 190	1 212 1 218	7 7
(	CAVITY PR	OFILE	I 223	6
			1 229	5
			I 235 I 242	5 4
			I 247	5
			1 253	5
			I 255 I 257	5
		365	I 257 I 258	3 1
			1 0	0

PROJECTILE TYPE -S-W. JHP, .357 MAG PROJECTILE VELOCITY (MPS) -544.29
PROJECTILE DIAMETER (CM) - .907

PRE	JECTILE DE	FORMATION		I CAVITY HEASUR	REMENTS
			AREA (HM++2)	; 1 PENETRATION 1 DISTANCE (MM)	
	23	144	144	1 0	42
	58	175	175	I 5	50
	99	185		1 11	56
	130 157	222 225	228 226	1 17 1 23	61
	13.	253	220		65
				1 29 1 34	68 69
					70
				1 46	70
	300				72
	300			1 52 1 58	72
				1 64	71
	!			1 70	70
1.	250 🗕			1 75	69
<del></del>				1 81	67
ل <b>ب</b> ا	:	1 (		1 87	65
	Ì	/ \		I 93	63
	200	/ \	-	j 99	61
N S	1			! 105 ! 111	59
		/		1 111 1 117	57 54
<del></del>	150			1 122	51
Œ	100	/	,	1 128	49
$\simeq$			,	1 134	44
<b>-</b>			\	I 140	41
	100 -	/	1 !	1 146	39
المليا		/		I 151	37
<u> </u>				1 157	
_				1 163	34 30
	″50 <del> </del>			1 169	27
	1			1 175	24
		\ .		I 181 I 187	20 18
	0   '	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		i 181 187	18
	g <del>1</del>			138	16
	-198	-50 0	90 100 T		-
		AVITY PRØ	FILE	! 204 ! 210	11
					9
				1 216 I 222	7 6
				1 228	6
				. 220 I 233	6
				1 239	3

PROJECTILE TYPE -S+N. JHP, .38 SPEC PROJECTILE VELOCITY (MPS) -560\_29
PROJECTILE DIAMETER (CM) - .907

PROJECTILE DEFORMATION	I CAVITY HEASUREMENTS
	**2) I DISTANCE (MM) RADIUS(MM)
22 197 197 57 168 168	1 0 41
57 168 168 94 209 210	I 6 50
121 209 210	
144 220 222	
220 222	1 24 57 1 29 69
	1 35 71
	1 41 72
	1 47 73
	1 53 74
Tr	j 59 74
200 m T 1 T	I 65 73
	i 71 72
	1 77 67
I pue I	1 89 64 60
L.	I 101 56
Paux F 71	1 107 54
	i 113 49
Z / \	1 119 44
	1 125 41
+ 15.) + \ \ \	I 131 36
	1 137 33
	I 143 32
	I 149 28 I 154 26
및 1900 <del> </del>	
i.i.	
	f 166 19 I 172 15
_ , :	1 178 12
5.) <del>-</del> (	I 184 10
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 196 7 1 199 6
	1 202 4
CAVITY PROFILE	. 1 606 4

ROUND NUMBER - 100

PROJECTILE TYPE -S+W. JHP, .357 MAG PROJECTILE VELOCITY (MPS) -153.71 PROJECTILE DIAMETER (CM) - .907

PROJECTILE DEFORMATION			1 CAVITY HEASUREHENTS									
PENETRATION DISTANCE (MM)		DISTANCE (MM) AREA (MM++2)				AREA (MM++2) AREA (MM++2)		1) AREA (MM++2) AREA (		(MM++2)	I I PENETRATION I DISTANCE (MI I O	CAVITY 13 RADIUS(MM) 5
	17		- 59	5	9	5	8					
	34 53		63 55	· 6		1 7 1 11	8 6					
	73		59	5		1 17	7					
				-		1 23	7					
						1 29 1 35	Z					
						41	6 6					
	360	<u></u>	T			I 53 I 59	6 6					
						I 65	6					
. I_	000					I 71 I 77	6					
<b>⊢</b>	250	<b>-</b>				1 // 1 83	6 6					
0 U.i		İ			1	1 89	6					
	0.00		} \			1 95	6					
Z	200		) \			I 101 I 107	6 7					
5			( \			1 112	7					
<b>-</b>		İ	\		ì	1 119	7					
L C	150	-	\ (		1	I 125 I 130	7					
$\Omega$					i	I 136	8					
1.1.1						I 142	8					
Z	190	<u> </u>				1 148	<b>9</b> .					
ني		!	1 1			1 154	9					
13.						1 160 1 166	10					
	50	-	1 1		-	1 172	10					
					1	1 178	10					
			1 {1}			1 184 1 190	7					
	3	100	-50 0	5მ	100	I 196 I 202	6 6					
			VITY PROF			1 208	6					
		٥, ٠	· 1 · · · · · · · · · · · · · · · · · ·			J 214 I 220	6 6					
						I 226	6					
						1 232	6					
						1 238	7					
						1 243 1 250	7					
						1 250 1 252	6 4					
					368		-					

PROJECTILE TYPE -S+W, JHPW .38 SPEC PROJECTILE VELOCITY (MPS) -230.56
PROJECTILE DIAMETER (CM) - .907

<b></b>	ROJECTILE DE	FORMATION		I CAVITY MEASUR	 EMENTS
	ENETRATION ISTANCE (MM) 7	PRESENTED AREA (MM**2) 99	CRESS-SECT AREA (MM**2)	I I PENETRATION I DISTANCE (MM) I O	CAVITY RADIUS (MM) 11
	49	98	98	I 4	11
	53	98		I 9	12
	96	90		I 14 I 18	16 19
	•			I 23	21
				ī 27	22
				1 32	22
				I 37	23
				1 42	24
	300	<del></del>		I 46 I 51	24 24
		·		i 51 i 56	23
				. 60	23
1	250			I 65	23
<u> </u>	250			T 70	23
Δ	Ì			I 74	22
OEPTH		1 {	ı	I 79	22
	200 -	/ \		I 84 I 88	21 20
PENETRATION			t t	. 93	19
ات				98	18
<b></b> _	150		,	102	17
Œ			1	107	16
1 <u>2</u> -	İ	/		111	16
ليا			i i	[ 116 [ 121	16
Z	100			121	15 14
ĹΉ			1	130	13
٠ــــ				135	12
	50		· ·	140	12
	į			144	12
			L.	[ 149 [ 154	11 11
	0 1	1 11		158	11
		50 0 5	50 100 <sup>1</sup>		10
				168	10
	CAY	VITY PROFI	[LE	172	10
			Ţ	177	11 11
			]	I 182 I 186	11
			]	191	10
			j		15
			Į	200	9
			j	1 205	9 8 7
			369	210	7
			309 1	214 219	7 7

### RUUND NUMBER 123 CONTINUED

I	224	7
1	228	7
I	233	7
Ţ	238	7
Į	242	6
I	247	6
I	252	5
I	256	5 5
I	261	6
Ī	266	6
ľ	270	6
ľ	275	7
1	280	7
I	284	7
I	289	6
I	293	6
ī	9	O
ĭ	0	O

PROJECTILE TYPE -S+W, JHP4 .357 MAG PROJECTILE VELOCITY (MPS) -240.00 PROJECTILE DIAMETER (CM) - .907

PROJECTILE DE	FORMATIGN		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 6 26 51 75	PRESENTED CF AREA (MM**2) AF 62 99 94 114 103	ROSS-SECT REA (MM**2) 62 99 95 116 103	I PENETRATION I DISTANCE (MM) I G I 6 I 11 I 17 I 23 I 29 I 35 I 40	9 9 12 15 19 21 23 24
	-50 C SO VITY PROFIL	193	163 169 175 181 187 193 199 204 210 216 222 228 234 239	24 24 23 22 24 22 21 21 21 21 21 21 21 21 21 21 21 21
		371	251 257 260 262 264	4 4 4 3

PROJECTILE TYPE -S+W. JHP. .357 MAG PROJECTILE VELOCITY (MPS) -276.34

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
		CRGSS-SECT AREA (MM**2)	I I PENETRATION I DISTANCE (MM)	
9	61		I 0 I 6	15 16
30 61	52 61		I 6 I 11	18
90	63		ī 17	22
121	71		. 23	23
	• •		1 29	25
			I 35	26
			I 40	27
			1 47	27
300			I 52	26
		1	I 58	25
			I 64	24
_			I 70	22
<u> </u>		1	I 76	21
۵.			1 82	20
i.i			I 88	20
(2)			<u> </u>	19
200	1 1		[ 99	19
Z O		,	I 105 I 112	19 18
		1	I 117	18
<b>⊢</b> 150 <b>⊢</b>	1		i 117 i 123	16
CE			I 129	16
a=			135	15
<b>⊢</b>		i	1 140	15
N 100		ì	1 146	14
الل			I 152	14
۵			I 158	14
	/ \		164	14
50			I 179	14
	\ /		I 176	13
			I 182	13
i			188	13
	E 0		I 193	12
	-50 0		199	12
CA	IVITY PROF		I 205 I 211	11 11
			I 217	11
			1 222	$\hat{\mathbf{i}}\hat{o}$
			. 228	ĩó
			234	11
			1 240	10
			1 246	īő
	•	]	I 252	10
			I 258	9
			I 264	8
		•	I 269	8
		1	275	8

#### ROUND NUMBER 107 CONTINUED

1	281	. 8
I	287	7
I	293	7
I	299	6
I	305	6
I	310	6
I	316	5
I	322	5
I	326	4

PROJECTILE TYPE -S+N. JHP. .38 SPEC PROJECTILE VELOCITY (MPS) -319.16 PROJECTILE DIAMETER (CM) - .907

PROJECTILE DEFORMATION				I CAVITY HEASUR	EMENTS	
	NETRAT Stanci 13		PRESENTED AREA (MM**2) 58	CROSS-SECT AREA: (MM+#2) 58	PENETRATION  I DISTANCE (MM)	CAVITY RADIUS(MM) 16
	40		66 60	66	1 15	19
	109 144		76	79	1 23	25 27
					I 29 I 34	29 30
					1 41	31
					1 46	<b>3</b> 0
					1 52 1 58	29 27
	300				1 64	25
					I 70	25
					1 75	27
<u> </u>	250	_	> \		1 81 1 87	27 27
Ω			/ )		I 93	25
					1 99	25
<u></u>	500	-	} \	$\dashv$	1 105	25
Z (5)			}		1 110 1 116	<b>24</b> 22
- N.⊃						
₽.	150	-			I 122 I 128	21 21
Œ.					I 134 I 140	22 22
۱ نيا	.00				1 155	22 21
11. 27. 11.	190	_				
땁.			}		1 123	- 38
	50	<u> </u>		-	I 169 I 175	19 20
					1 180	19
					I 186 I 192	17 18
	0		1 1 1		I 198	16
	_	100	-50 0	50 190	1 204	16
			VITY PROF		1 210	16
		011	V 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Mr. Proces Poers	1 216 1 221	16 16
					1 227	16
					I 233	14
					I 239	14
			•		1 245 1 251	12 13
						12
					I 256 I 262	12
				374	I 268 I 274	11 10
						<b>4</b> 30

I	280	9
1	286	9
I	291	9
1	297	8
1	303	8
1	309	7
I	315	6
1	316	5
7	316	3

PROJECTILE TYPE -S+W, JHP% .357 MAG PROJECTILE VELOCITY (MPS) -345.58

PROJECTILE DIAMETER (CM) - .907

PROJECTILE DE	FORMATION	I CAVITY MEASUR	EMENTS	
	PRESENTED AREA (MM**2)	AREA (MM**2)	I I PENETRATION I DISTANCE (MM)	
12 40	93 66	93 67	I Ĉ I 5	17 21
78	65		1 11	26
112	60		i i7	28
150	66		I 23	30
	•		I 29	31
			35	32
			I 41	33
			1 47	33
300	T		I 52	32
		i i	I 58	31
	} \	ì	I 64	29
≖ esa ⊨	.		1 70	29
王 253 -	\	:	76	2.7
Ω		ţ	l 82	27
Hi		i	1 88	26
C 200 -	.		1 94 1 99	27
		4	ľ 99 ľ 105	26 25
<u>z</u>			l 111	24
		1	1 117	22
F_ 150 F		!	1 123	23
E .	) }	i	1 129	24
<b>├</b>	) (	1	1 135	22
LL		,	1 141	23
₩ 100			I 147	22
14.1	)		f 153	22
U.	1		I 158	21
53		-	I 164	2 ì
76			1 170	20
	\ /	1	I 176	19
		, ;	I 182	19
0			I 188	18
-100	-50 O	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	I 194	18
- (00 CF			I 200 I 206	18
Ur	111111111111111111111111111111111111111		I 206 I 211	17
	_		I 211 I 217	16 16
	•		1 223	15
			i 229	14
			I 235	14
			I 241	14
			247	13
	•		I 253	13
			I 258	13 12
			I 264	12
			270	11
		376	I 2 <b>7</b> 6	11

## ROUND NUMBER 108 CONTINUED

I	282	11
1	288	11
I	294	10
I	300	10
I	305	9
Ï	312	8
I	316	8
I	0	O
I	0	o

PROJECTILE TYPE -S+W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -351.96

PROJECTILE DE	FORMATION		I CAVITY MEASUREMENTS	
PENETRATION DISTANCE (MM) 12 40 78 111 146	PRESENTED CRC AREA (MM**2) ARE 57 61 65 63 70	SS-SECT	PENETRATION DISTANCE (MM)  0 5 11 17 23 29 35 41	CAVITY RADIUS(MM) 17 21 25 30 33 35 37 38
300 H a 300 H a 300 L	-50 c 50 SVITY PROFIL		53 58 65 71 77 82 88 94 100 106 112 118 123 130 135 141 147 153 159 165 171 177 183 189 195 200 206 212	37 35 36 35 34 33 32 30 31 29 29 29 27 24 24 22 20 19 21 20 18 17 16 15 15 13 13 13 13 19 9

# ROUND NUMBER 109 CONTINUED

I	283	9
I	289	8
I	295	7
I	301	7
I	307	6
I	313	6
I	316	6
I	0	0
1	C	ō

PROJECTILE TYPE -S+W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -370.80

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION CISTANCE (MM) 13	PRESENTED AREA (MM** 97	CROSS-SECT 2) AREA (MM**2) 97	I PENETRATION I DISTANCE (MM) I O	CAVITY RADIUS (MM) 20
42	106	106	I 5	23
78	116	116	1 11	29
110	124	124	I 17	34
141	107	17	I 23	37
			I 29	40
			I 34	41
			I 40	41
			I 46	42
300		T	I 52	42
.,,,,	' (')		I 58	44
			I 64	44
	1		I 69	42
工 250 <u>ト</u>	/ \		I 75	43
	/ / ·		I 81 I 87	42
۵. لنا				41
				40
200 -	1		I 99 I 104	38 36
Z O	1		I 110	35
<u>ව</u>			I 116	33
<del></del>	•		I 122	31
는 150 <b>-</b>	/		i 128	28
CT.	\		I 133	28
-	·		I 139	28
Z 100	<i>)</i>	\ -	1 145	27
Z 100	1		I 151	25
L.	1		I 157	23
D.			I 162	21
50 H	<b>\</b>	( -	I 168	21
.50			I 174	20
	\		I 180	19
l .	_ , \ , ,		I 186	19
0		<u> </u>	I 192	19
- 1 00	-50 0	5J 10C	I 197	18
		METLE	I 203	17
L1	40111111	C I L L	I 209	16
			1 215	16
			I 221	15
			I 227	13
			I 233	11
			1 238	9
			I 244	9
			f 250	8
			I 256	6
			I 262 I 268	6 5 5
			1 268	כ

## ROUND NUMBER 104 CONTINUED

I	279	5
1	285	5
I	291	5
1	297	4
I	302	4
I	308	4
1	311	4
I	313	2
1	0	õ

PROJECTILE TYPE -S+W. JHP. .38 SPEC PROJECTILE VELOCITY (MPS) -385.34
PROJECTILE DIAMETER (CM) - .907

 PROJECTILE DE	FORMATION	I CAVITY MEASUREMENTS		
			I PENETRATION I DISTANCE (MM)	
26 89	10 <b>1</b> 99	167 99	1 0 1 4	2 <del>4</del> 28
93		111	1 9	31
145	104 75	114	I 14	35
1 )	• • • • • • • • • • • • • • • • • • • •	4 A 7	I 18	39
• !			1 23	41
			1 28	43
			I 32	45
			1 37	46
			I 42	47
			I 46	47
300			I 51	47
ĺ		1.	I 56	47
	/		1 60	48
± 250 -			I 65	49
<b>⊢</b> į			I 70	49
Δ_	. /	•	1 74	48
iii	/ \		1 79	48
□ sue -	/	4	T 84	47
			1 88	46
Z S	)		1 93	44
<b>⊢</b>	(		1 98 1 102	43 41
F 150 F	) . (	-	I 107	39
E 1	/ '	\ ·	I 112	39
	1		I 116	38
H 100 -	J ·		1 121	38
岁 100 上		\ \	I 126	37
لنا	/		T 130	35
Δ			1 135	32
ea l			I 140	30
50			I 144	29
	\	)	1 149	28
		/	154	28
0 1	17/		I 158	29
	50 <b>0</b>	50 100	1 163	29
-100	-50 0		I 168	28
0	AVITY PRO	FILE	I 172	27
i			1 177	26
			I 181	26
	" Was a select		I 186	26 25
			I 191	25 24
	•		I 195 I 200	24 24
			I 205	22
			I 209	21
		382	1 214	20
		302	1 219	19
			n ++ + -/	• /

## ROUND NUMBER 122 CONTINUED

Ţ	2 <b>2</b> 3	18
I	228	17
I	233	16
I	237	15
I	242	15
I	247	14
Ĭ	251	14
Ţ	256	13
ĺ	261	12
I	266	12
ĺ	270	11
I	2 <b>7</b> 5	11
I	279	15
I	284	16
I	289	13
I	293	10
I	298	9
I	303	9
ſ	308	9
ſ	312	8
I	317	8
Ĭ	319	8
I	9	0
I	C	0

PROJECTILE TYPE -S+W, JHP, .38 SPEC PROJECTILE VELOCITY (MPS) -391.27
PROJECTILE DIAMETER (CM) - .907

PROJECT	ILE DEFOR	MATION	CAVITY MEASUREMENTS		
PENETRA CISTANC 28 81 94 144			119	I PENETRATION I DISTANCE (MM) I O I 4 I 9 I 13 I 18	23 27 32 38
300 PENETROTION DEPTH 200 200 200 200 200 200 200 200 200 20	00 ~50 CAVIT	2 PROFI	168 LE	I 18 I 23 I 28 I 32 I 36 I 42 I 46 I 51 I 55 I 60 I 65 I 70 I 74 I 79 I 84 I 93 I 98 I 102 I 107 I 112 I 116 I 121 I 126 I 135 I 140 I 145 I 149 I 145 I 149 I 145 I 149 I 145 I 149 I 145 I 149 I 145 I 168 I 173 I 177 I 182 I 187 I 196 I 201 I 205 I 205 I 216 I 219	44 44 48 49 49 55 55 49 48 44 44 44 49 33 33 33 33 34 22 23 24 24 24 24 24 24 24 24 24 24 24 24 24

### ROUND NUMBER 121 CONTINUED

I	224	16
1	229	16
I	233	16
I	238	15
τ	243	15
I	248	15
I	252	14
I	257	13
I	262	13
I	266	12
I	271	11
I	276	11
I	280	10
1	285	9
ī	289	9
I	294	8
1	299	8
Į	304	7
Į	308	7
I	313	7
1	318	7

PROJECTILE TYPE -S+W. JHP. .357 MAG PROJECTILE VELOCITY (MPS) -448.12
PROJECTILE DIAMETER (CM) - .907

PROJECTILE DEFORMATION	I CAVITY MEASUREMENTS	
PENETRATION PRESENTED CROSS-SECT DISTANCE (MM) AREA (MM++2) AREA (MM++2)	PENETRATION CAVITY (MM)	
19 109 109 52 298 299	I 0 35 I 5 42	
96 155 155	1 11 47	
131 136 136	I 17 51	
166 166 166	I 23 54 I 29 57	
	I 29 57 I 35 59	
1	l <b>41</b> 61	
	1 46 62	
300	1 52 63 1 58 62	
	1 64 62	
/ /	70 61	
I 250	1 76 59	
	I 81 58	
五 五 五 五 五 五 五 五 五 五 五 五 五 五	97 57 93 55	
200 -	I 99 53	
Z ( )	l 105 51 l 111 49	
	i 116 5ó	
150 -	123 28	
	1 134 44 1 140 45	
	1 140 45 1 145 43	
¥ 100 - /	152 41	
₩ a.	157 40	
	163 -38	
50 - (	1 169 37 1 175 36	
	1 101 36	
	1 187 34	
0	1 193 32	
-100 -50 0 50 100	l 198 28 l 204 29	
CAVITY PROFILE		
	I 216 24 <sup>.</sup>	
· · · · · · · · · · · · · · · · · · ·	222 21	
·. •	<b>228</b> 20 234 20	
1		
i		
·	1 251 17	
70.4		
386	<b>363</b> 18	
ī		

#### ROUND NUMBER 87 CONTINUED

ı	280	15
1	286	14
I	292	14
1	297	13
I	304	12
1	308	10
I	310	10
J	312	9
Ŧ	313	4

PROJECTILE TYPE -S+W. HEMI JSP...38SP PROJECTILE VELOCITY (MPS) -237.38

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 13 54 61 105	PRESENTED AREA (MM**2) 58 60 59 61	CRCSS-SECT 1 AREA (MM**2) 1 58 60	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 18 I 23 I 29 I 35	12 13 15 17 18 18
300 ∓ 250 ⊢			47 53 59 65 71 77	18 17 16 15 15 16
200 - 200 -			88 94 1 100 1 106 1 112 1 118	15 15 15 15 15 14
150 H H H H H H H H H H H H H H H H H H H			1 130 1 136 1 141 1 148 1 153	13 13 12 12 11 10 10
	-50 O IVITY PROF	50 100	1 171 1 177 1 183 1 189 1 195 1 201 1 207	9 8 8 7 7
2.67			219 225 231 237 243 248 254 260	6 6 6 6 5 5 5
		388 I	272	4 4

### ROUND NUMBER 119 CONTINUED

i	284	4
I	290	4
Ī	296	4
I	301	3
Ţ	308	3
1	313	3
I	319	3
1	325	3
I	330	2

ROUND NUMBER - 118

PROJECTILE TYPE -S+W, HEMI JSP,.38SP PROJECTILE VELOCITY (MPS) -314.23

			I CAVITY MEASUR	EMENTS
PENETRATION CISTANCE (MM) 22 71 84 135		GSS-SECT	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23	CAVITY RADIUS (MM) 14 15 16 19 20
300	-		I 29 I 35 I 41 I 47 I 53 I 59 I 65	20 21 21 21 21 21 21
H 250			71 1 77 1 82 1 88 1 94 1 100	21 21 21 21 21 21 20 20
NETRH 120 100			1 112 1 118 1 124 1 130 1 135 1 141 1 147	18 16 16 14 15 14
100 - 50 -			I 153 I 158 I 165 I 171 I 177 I 183	15 15 14' 13 13
and the second s	-50 0 50 VITY PROFIL	100 E	I 189 I 194 I 200 I 206 I 212 I 218 I 224	13 13 13 13 13 14
	•		I 230 I 236 I 242 I 247 I 254 I 259	13 12 11 11 10
		390	I 265 I 271 I 277	9 8 <b>7</b>

### ROUND NUMBER 118 CONTINUED

I	283	7
Ī	289	6
I	<b>29</b> 5	6
I	301	6
I	307	5
I	313	5
I	319	5
I	325	4
I	327	4

PROJECTILE TYPE -S+W, HEMI JSP, .38SP PROJECTILE VELOCITY (MPS) -381.00

PROJECTILE DE	FORMATION		CAVITY MEASUR	 EMENTS
PENETRATION CISTANCE (MM) 15 42 81 113 146		A (MM**2) 55 53	I PENETRATION I DISTANCE (MM) I 0 I 5 I 11	CAVITY RADIUS (MM) 20 24 26 28 31 33 33
300 H 250 200 L 25			47 53 59 65 70 76 82 88 94 100 1106 1112 1118 124 129 135 141 147 153 159 165 171	33 33 33 33 32 32 31 30 29 28 27 26 24 23 22 21 20 21 19 18 17 18 17 16
-100	-50 0 50 NVITY PROFIL	190 E	201 206 212 218 224 230 236 242 247 254 259 266 271	15 14 13 13 12 12 12 11 19 10 10

#### ROUNC NUMBER 117 CONTINUED

I	283	8
I	289	7
Ī	295	6
I	300	5
Ĭ	306	5
I	311	5
I	315	4
I	O	٥
Ţ	O	9

PROJECTILE DEFORMATION			I CAVITY HEASUR	EMENTS
PENETRATION Distance (MM) 20	PRESENTED AREA (MM++2) 54	AREA (MM##2)	)   PENETRATION   DISTANCE (MM)   O	CAVITY RADIUS(MM) 24
52	55	55	j 6 <sup>.</sup>	27
90	56		11	30
124 159	55 55		l 17 I 23	33 35
<b>-</b>			I 29	38
			I 35	39
		·	41	39
			l 46	40 30
300	TIL	T	I 52 I 58	39 38
			64	38 38
± 250 -		+	76 1 81	39 38
<u>С</u> .			87 83	36 34
200	}	-	1 99 1 105	33 33
N O	) (		110	31
50	{			29
☐ 150 ☐	\		I 122 I 128	27 26
Œ				26
E H			140	24
일 100			i 145 ! 151	24 24
ليا	(	\	157	23
Ω.	)	}	163	21
53 -		) - ;	l 169 l 175	23 22
	(			20
	\	1		20
o L			192 198	20 20
-1 <b>0</b> 0	-50 0 Avity prøf	50 100 FILE		19 19
	.,	]	215	19 19
			233	19
		! 1	239	16 14
		į	251	13
			257	12
		394	263 268	11 31
		ĵ		10

### ROUND NUMBER 77 CONTINUED

I	280	9
	286 291	8 7
	297 303	7
	302	3
	314	5

PROJECTILE TYPE -S+W. JSP4 .357 MAG PROJECTILE VELOCITY (MPS) -229.69

PRO	JECTILE DE	FORMAT I ON		I CAVITY MEASUR	EMENTS
	ETRATION Tance (MM)		CROSS-SECT Area (MM**2)	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM)
	6	54		I 0	9
	27	55		I 5	9
	<b>53</b>	53	53	I 11	11
	80	- 60	60	I 18	13
	109	63	63	I 23 I 29	13 14
				1 29 1 35	14
				I 41	13
			** ***	I 47	12
	, and other	to the world		I 53	12
	300			1 59	12
	200			I 65	11
				ī 71	11
		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	,	ī 77	11
工	250.			I 83	10
<del> </del>	200		1	I 89	11
ON DEPTH		\		I 95	10
Щ				I 101	10
ш	200		$\dashv$	I 107	10
Z		\ \		I 113	9
$\overline{\mathbb{C}}$	ļ			I 118	9
		• [		I 125	9
<del>-</del>	150			I 130	9
$\overline{\Omega}$		\. \		I 137	9
12	<b>.</b>			I 142	9
111				I 148	9
PENETRAT	100			I 154	9
ليا				I 160	9
$\Box$	}			I 166	10
				1 172	9
	50	1 \		I 178	10
		(		I 184	10
	-		1	1 190	10
	o L			I 196	li
				1 202	12
	-100	-50 0		I 208	12
	C F	IVITY PROF	FILE :	I 214	12
	<del>-</del> ·			I 220	12
				I 226	13
				I 232	14
				[ 238 [ 243	14
			d.		14 15
				I 255 I 261	14
					15 15
				I 267 I 273	15 15
			930	1 412	10

### ROUND NUMBER 103 CONTINUED

1	285	14
I	291	13
I	297	12
I	303	11
I	309	9
I	315	7
ĭ	321	5
Ī	323	4
I	324	3

PROJECTILE TYPE -S+W. JSP. .357 MAG PROJECTILE VELOCITY (MPS) -290.56

PRO.	JECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
	8 <b>34</b>	PRESENTED AREA (MM**2) 55 56	AREA (MM**2) 55 56	I PENETRATION I DISTANCE (MM) I O I 5	12 14
	67 98 133	66 77 63	66 77 60	i 11 I 17 I 23	17 19 21
			****	I 29 I 35 I 40	21 21 22
	300			I 46 I 52 I 58	22 20 20
<u>r</u>	250 -		-	I 64 . I 70 I 76	19 20 20
			•	I 81 I 87 I 93	19 18 19
	200		-	I 99 I 105 I 111	19 18 17
	150			I 116 I 123 I 128	17 17 16
	190		L L	I 134 I 140 I 146	16 15 16
1. 1.				I 151 I 158 I 163	17 16 16
	50 -		<b>t</b>	I 169 I 175 I 181	16 16 16
	0			I 187 I 193 I 199	15 16 16
	-100 CF	-50 0 AVITY PRØF	- <u>                                    </u>	I 204 I 210 I 216	15 13 13
				I 222 I 228 I 234	14 11 11
				I 239 I 245 I 251	12 12 12
				I 257 I 263	12 11
				I 269 I 275	10 10

I	280	10
Ţ	286	9
I	292	10
I	298	9
I	304	8
I	<b>310</b>	8
I	315	7
I	321	7
I	C	O

PROJECTILE TYPE =- S+W. JSP. .38 SPEC:PROJECTILE VELOCITY (MPS) -317.17
PROJECTILE DIAMETER (CM) - .907

PROJECTILE DE	FORMATION	I CAVITY HEASUREMENTS		
PENETRATION DISTANCE (MM) 8 35 70 102	PRESENTED AREA (MM++2 57 87 84 81	CROSS-SECT ) AREA (MM++2) 57 87 84	PENETRATION DISTANCE (MM) O S S S S S S S S S S S S S S S S S S	CAVITY RADIUS(HM) 16 18 21
135	76	81 76	1 17 1 23 1 28 1 34 1 40	24 26 29 31 32 33
300 ± 250			1 52 1 57 1 63 1 69 1 74 1 80	34 34 33 32 33 33
10 N D E D E D			1 86 92 1 98 1 103 1 109 1 115	32 32 31 30 28
H 150 - H 150			F 121 E 126 I 132 I 138 I 144	27 25 26 24 24
50 -			I 149 I 155 I 161 I 167 I 173 I 178	24 24 22 21 21 20
	J J / -50 C VITY PRO	50 10C FILE	I 184 I 190 I 196 I 202 I 207	19 18 20 19 17
_ <b>_</b> .l .			1 213 1 225 1 231 1 236 1 242	18 17 15 15 15
	•	400	I 247 I 253 I 259 I 264 I 270	14 14 13 11

1	276	10
1	282	9
I	288	9
1	293	8
I	2 <b>9</b> 9 305	8 7
ļ	311 317	7 5
1	O	۵

ROUND NUMBER - 111

PROJECTILE TYPE -S+W, JSPW .357 MAG PROJECTILE VELOCITY (MPS) -317.50 PROJECTILE DIAMETER (CM) - .907

PROJE	CTILE DE	FORMATION	·	1 CAVITY MEASUR	EMENTS
DISTA 1	RATION NCE (MM) 12 39 73 04 37	PRESENTED AREA (MM**2) 54 59 62 68 62	CROSS-SECT AREA (MM**2) 54 59 62 68 62	I PENETRATION I DISTANCE (MM) I O I 6 I 11 I 17 I 23 I 30 I 35 I 41	14 17 20 23 27 29 30
PENETRATION DEPTH				I 47 I 53 I 59 I 65 I 71 I 77 I 83 I 89 I 95 I 101 I 107 I 113 I 119 I 125 I 131 I 136 I 142 I 148 I 154 I 160 I 166 I 172	32 33 34 34 33 32 31 28 28 26 24 26 25 24 25 24 25 24 23 22
C	-100 -	Joo C TO TO THE PROF	1 100 I L E	1 178 1 184 1 190 1 196 1 202 1 208 1 214 1 220 1 226 1 232 1 238 1 244 1 249 1 255 1 261 1 267 1 273 1 279	22 21 19 19 17 17 17 15 14 13 14 12 12 12 12 11

# ROUND NUMBER 111 CONTINUED

I	285	10
1	292	9
I	297	9
I	303	8
Ī	309	8
I	315	8
í	321	9
I	327	8
I	331	8

PROJECTILE TYPE -S+W, JSP, .357 MAG PROJECTILE VELOCITY (MPS) -328.09
PROJECTILE DIAMETER (CM) - .907

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION CISTANCE (MM) 11 39 74 105 138	PRESENTED AREA (MM**2) 63 74 80 88 76	CRGSS-SECT AREA (MM**2) 63 74 80 89 78	I PENETRATION I DISTANCE (MM) I 0 I 6 I 11 I 17 I 23 I 29 I 35 I 41	CAVITY RADIUS (MM) 15 18 22 26 29 31 32 34
300 BEPTH 520 - 12			1 47 1 53 1 59 1 64 1 71 1 76 1 82 1 88 1 94 1 100 1 106 1 112 1 118 1 123 1 129 1 135 1 141 1 147 1 153 1 159 1 165	35 35 34 34 35 36 36 36 35 34 32 30 28 28 28 28 27 27 27 25 24 23 23
6.3 -100. CI		50 100 FILE	171 177 182 189 195 1200 1206 1212 1218 1224 1230 1236 1236 1236 1236 1236 1236 1236 1236	23 21 20 20 19 18 17 18 18 17 17 17 16 16 15 15 14 13

### ROUND NUMBER 110 CONTINUED

I	283	11
1	288	10
I	294	10
Ţ	300	9
Ţ	306	8
I	312	8
I	317	8
I	9	Ō,
I	0	0

PROJECTILE TYPE -S+W. JSP4 .357 MAG PROJECTILE VELOCITY (MPS) -371.71
PROJECTILE DIAMETER (CM) - .907

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 13 45 85 123 164	PRESENTED AREA (MM**2) 56 56 53 56 57	CRGSS-SECT AREA (MM**2) 56 56 53 56 57	I PENETRATION I DISTANCE (MM) I 0 1 5 I 11 I 17 I 23 I 29	17 22 27 30 32 34
300 H- 250 G- 200 NDI + H50 +		-	I 35 I 41 I 47 I 53 I 59 I 64 I 70 I 76 I 82 I 88 I 94 I 100 I 106 I 112 I 118 I 124 I 130 I 135 I 141 I 147	35 35 34 34 32 31 31 29 28 29 28 29 28 29 27 25 24 24 23
100 -100 -5 CAV	SO O ITY PROF	50 100 ILE	1 153 1 159 1 165 1 171 1 177 1 183 1 189 1 195 1 201 2 206 2 12 2 218 2 224 2 30 2 36 2 42 2 48 1 254 2 60 2 60 2 60 2 71	24 24 24 23 21 22 22 20 20 20 20 20 20 18 17 16 16 16 16 16

## ROUND NUMBER 105 CONTINUED

1	283	15
Į	289	15
I	2.95	15
I	301	14
I	307	13
ľ	313	13
1	319	13
1	324	. 13
I	0	Ü

PROJECTILE TYPE -- S+W. JSP, -357 MAG PROJECTILE VELOCITY (MPS) -475.51
PROJECTILE DIAMETER (CM) - .907

PROJECTILE DEFERMATION			I CAVITY HEASUREMENTS	
PENETRATION DISTANCE (MM)	PRESENTED AREA (MM++)	CROSS-SECT	I 3 PENETRATION X DISTANCE (MM)	CAVITY RADIUS(HH)
17	90	· -	1 0	24
54 100	99	= =	5	29
139	107 108		1 11 1 17	36 42
iii	114		i 23	46
			1 29 1 35	49 52
30C			1 41 1 47	54 55
300			\$ \$8	<b>5</b> 5
	/ \	•	T 64	57
T 050	· /		1 70	58
三 250 — a_	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1	1 76	58
Ω_	/.	1	1 81 1 87	58 <b>5</b> 7
	1	· · · · · · · · · · · · · · · · · · ·	a 67 I 93	55
200 ⊢	· )	\	i 99	53
Ŋ	1		r 105	52
·	/		A 111	52
+ 150 <u></u>		1	117	51
€45	)	1	1 122 I 128	50 48
<u>~</u>		1	1 134	47
	<i></i>	1	I 140	46
본 198		( -	I 146	45
F 6	1		1 152	44
		- 1	I 157	43
53. —		$\int$ $\rightarrow$	I 163 I 169	42 43
			1 175	43
_		/, l	I 181	41
0	<u> </u>		1 187 1 193	39 36
	-50 0 VITY PRØ	F !   F	1 199 1 204	33 32
1	1 1 1 1 1 1		I 210 I 216	32
		· · · · · · · · · · · · · · · · · · ·	I 216 I 222	32 32
			1 228	31
•			234	29
		;	239	27
			Y 245	26
			E 251	25
			1 257 1 263	23
		· · · · · · · · · · · · · · · · · · ·	1 263 I 268	20 21
			x 274	19
		•	, ,	<del></del>

# ROUND NUMBER 86 CONTINUED

1	280		17
Ĭ	286		17
1	292		16
1	298		16
1	303		13
1	310		11
j 💮	315		9
Ĭ	321		9
I	324	•	8

ROUND NUMBER - 80

PROJECTILE TYPE -S+N. LRN. .38 SPEC PROJECTILE VELOCITY (MPS) -264-58
PROJECTILE DIAMETER (CM) - .907

PROJECTILE D	EFORMATION	I CAVITY MEASUR	EHENTS	
PENETRATION DISTANCE (MM 12	PRESENTED ) AREA (MM==2 56	CRUSS-SECT J AREA: (MM==2) 56	I I PENETRATION I DISTANCE (MM) I O	CAVITY RADIUS(NM)
36	<b>58</b>	58	1 11	16
192	89	89	1 23	13
			I 29 I 35	12 12
			I 41 I 47	13 13
300			I 53	13 13
	).		1 58 1 65	13
II 250			1 70 1 76	14 13
<u> </u>	\ /		I 82 1 88	13 13
LJ C	) /		I 94 I 100	12 12
Suc			I 106 I 112	12
	)		1 118	11
⊢ 150 − Œ .		7.	I 123 I 129	10 11
<u>0</u>	}		1 135 1 141	12 12
198			1 153	13
. <del>С</del>	( )	-	1 183	13
5J -	( )	-	1 170 1 176	12 13
			I 183 I 188	14 15
J L	1		I 194 I 200	17 18
-100 C4	-50 0 Avity prof	-50 - 192 FTLE	1 206 I 212	19 19
Ų. F	441111101	1 4.2	I 218	19
			1 224 1 230	21 23
			1 235 I 241	23 24
			I 247 I 253	26 27
			I 259	27
			I 265 I 271	27 27
			1 277	27

1	283	26
I	289	25
1	295	23
1	300	21
ì	306	19
1	312	16
I	318	14
1	323	11
ì	0	t.

PRE	JECTI	LE DE	FORMAT	TION			E CAVITY HEASUR	EMENTS
	ETRAT			[MM++2]		MR4423		CAVITY RADIUS (MM
	14			53	53		0	9 11
	3 <b>8</b> 69			57 52	57 62		I 6 I 12	11
	100			71	72		18	14
	134			61	61		1 24	15
							I 29	15
							I 36	14
							¥ 41	15
							1 47	15
	300	F		T T	<del></del>	1	I 53 I 59	14 14
		į	•	1 1	•		) 65	14
				1 1			1 71	15
	250	L					i 77	15
<u>←</u>	, ,,,,						1 83 1 89	14 16
نبا						i	1 95 I 101	14
	200	<u> </u>		)		-		16
Z S							106	15 13
				)			1 118	12
<b>→</b>	150						1 124	13
Œ	150						1 130	14
$\simeq$							1 136	13
<b>-</b>				) \			1 142	13
N F	190	-		\$		$\dashv$	I 148 I 153	13 13
LLJ				<b>\</b>			1 159 1 159	13
$\sigma$							1 165	13
	50	L		1 [			1 171	12
	50			1			1 177	13
				1 )			1 183	13
					i		1 189	13
	O	L		1.1.1			195	12 11
	_	100	-50	С	50	100		
		CE	TIV	Y PROI	F I L.E		I 207 I 213	12 13
		01					1 218	13
							1 224	12 13
							1 231	
						,	1 236 1 242	14 14
							1 248	15
							1 254	15
							I 260	16
					412		1 266 1 272	17 17
							1 272 1 277	17

ROUND NUMBER 79 CONTINUED

1	283	17
I	289 295	17
I	301	16
İ	307	16
1	313	16

PROJECTILE TYPE -S+W, WC, .38 SPEC PROJECTILE VELOCITY (MPS) -249.84

PROJECTILE DIAMETER (CM) - .907

	ROJECTILE DE	FORMATION	CAVITY HEASUR	EMENTS	
	PENETRATION Distance (MM) 13	PRESENTED AREA (MM##2) 89	CROSS-SECT 1 AREA (MM**2) 1	PENETRATION DISTANCE (MM)	CAVITY RADIUS (MM)
	33 58	97 96	97 96	5 11	19 21
	81 104	94 98	96 99		24
	204	70	77	i 29	28 31
			1	35	31
				41	31 29
				52	28
	300 -	TIT	т т	58 64	27 26
	) 			70	26
Γ.				76 82	25 23
<b></b>	00				23
C. Lu					22
<u>C.</u>			· · · · · · · · · · · · · · · · · · ·		21 18
Z	i		i		18
<u></u>					17
$\vdash$	150 ⊨			123 129	16 15
CI Or			i		13
⊢-	-			141	13 13
l 1. 2 14				153 158	12 11
Ω				164 170	10 10
	50	/ )		176 182	9
					8
	9 L	1 1 1		194 199	8 7
	-100 -	-50 0	50 108	206	7
	CA	VITY PRØF	ILE		7
			: 1	223	6
					6
			· ·	241	6
			1		5 5
			), and the second secon		5 5
			414	265	4
			71.7	270	4
				276	4

## ROUND NUMBER 78 CONTINUED

1	282	4
1	288	5
I	294	5
1	296	4
I	0	0
I	0	٥

PROJECTILE TYPE -- SPEER, JHP, 9MM PROJECTILE VELOCITY (MPS) -- 267.33

PROJECTILE DE	FORMATION	I CAVITY MEASUR	EMENTS		
PENETRATION DISTANCE (HH) -7 15 41 66 93 130 147	PRESENTED AREA (MH++2) 55 53 58 59 52 62 61	CRUSS-SECT	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 28	17 17 18 18 20 21 22	
300 FPTH 550	-50 0	50 100	1 32 1 37 1 41 1 46 1 59 1 56 1 60 1 65 1 70 1 74 1 79 1 84 1 88 1 93 1 98 1 103 1 107 1 112 1 121 1 126 1 131 1 145 1 145 1 159 1 164 1 169 1 178 1 178	23 24 24 24 23 22 21 20 20 20 20 19 18 18 18 18 18 18 19 11 11 12 12 11 11 10 10 10	
C F	IVITY PROF	416	1 183 1 187 1 192 1 197 1 202 1 206 1 211 1 216 1 220	9 8 8 8 8 8	

#### ROUND NUMBER 495 CONTINUED

ľ	225	7
]	229	7
I	234	7
1	239	7
1	244	7
1	248	7
}	253	7 7
Ì	258	7
Į	263	6
1	267	6
Ĭ	272	6
Ī	277	5
I	281	5 5 5 5 5
Ī	286	5
1	291	5
I	295	
I	300	4
Ŧ		

PROJECTILE ASS (GM) -- 6.480

PROJECTILE TYPE --- SPEER, JHP, 9MM PROJECTILE VELOCITY (MPS) --- 297.48

RDJECTILE DE	FORMATION		I CAVITY HEASURE	MENTS	
	AREA (MM++2) AR		I PENETRATION DISTANCE (MM)		
+5 18	53 80	53 80	t 0 T 4	20 22	
43	84	84	1 7	24	
68	85	86	1 14	27	
91	92	92	I 19	29	
121	87	87	1 24	31	
134	68	68	1 29	33	
			I 33	34	
			1 38	35	
			1 43	35	
			1 48	35	
		•	I 53	35	
200			57	35	
300	T		I 62	35	
		4	I 67	34	
		1	1 72	34	
T 250 -			1 77	33	
H-			1 82	32	
<u>G</u>			I 86 I 91	30 29	
			I 91 I 96	29 28	
ີ ຂບ3 ⊢		· –	; 76 ; 101	26	
2			1 106	25	
			1 111	24	
James .		į.	I 115	20	
<u>⊢</u> 150 ⊢			1 120	20	
T C		*	1 126	50	
<u></u>		•	1 130	19	
1		)	1 135	18	
图 193 上			1 140	17	
نسا			1 145	16	
ů .			1 150	15	
50 ⊬		i	3 354	14	
· ) (. , , , , , , , , , , , , , , , , , ,			I 159	11	
			1 164	9	
		i	1 169	8	
g i		.1.	1 174	7	
	c ,	. 100	1 179	6	
-100			I 183	6	
0	AVITY PROF	Ll t.	1 88	6	
			I 193	6	
			1 197	6	
			1 203	6	
			1 207	6	
	4	.10	1 212	6	
			1 217	6	
			I 222	6	
			1 227	5	

PROJECTILE TYPE -- SPEER, JHP. 9KK

PROJECTILE VELOCITY (KPS) --368.

PROJECTILE DE	FORMATION		CAVITY HEASUR	ERENTS
PENETRATION DISTANCE (RM) +3 21 49 75 97 125 135	PRESENTED C AREA (MM**2) A 73 175 215 172 157 157		I PENETRATION I PENETRATION I OBSTANCE (NH) I 0 I 4 I 9 I 14 I 18 I 23 I 28 I 32	CAVITY RADIUS (HH) 28 30 32 36 39 42 44
300 <u>T</u> 250			1 37 42 47 51 56 61 66 70	49 49 49 48 48 47 46
PENETRATION DEP			127 132 136 141	44 42 41 39 37 33 30 28 27 26 24 23 21
-100 C	-50 0 ! AVITY PROF	3 1 1	155 160 164 169 174 179 183 188	18 16 14 13 12 11 10 9 8 7
	4.	19 19	202	6 2

PROJECTILE MASS (GM) -- 6-480

PROJECTILE TYPE -- SPEER, JHP, 9MM PROJECTILE VELOCITY (MPS) -- 380-39

PROJECTILE DE	FORMATION	I CAVITY HEASUREMENTS
PENETRATION DISTANCE (HH) 0 23 52 77	PRESENTED CROSS-SECT AREA (HM++2) AREA (HM++2 87 88 169 170 181 181 174 174	I PENETRATION CAVITY  I DISTANCE (HH) RADIUS(HH)  I O 32  I 5 34  I 9 36  I 14 39
301 127 E39	145 149 160 168 160 161	J     19     41       J     24     43       1     28     46       I     33     48       I     38     49       I     43     50
300		1 47 50 1 52 49 1 57 49 1 62 49
王 250 		1 67 48 1 71 48 1 76 47 1 81 46
0 000 -		1 86 44 1 90 42 1 95 40 1 100 39 1 105 37
NE TRB T 100 -		I 105 37 I 109 36 I 114 34 I 119 32 I 124 30
100 F		1 129 28 1 133 26 1 138 24 1 143 22
0		I 148 21 I 152 19 I 157 18 I 162 15
-100 C1 	SO 0 50 100 AVITY PROFILE	1 166 14 1 171 12 1 176 10 1 181 9 1 186 8
- <del>-</del>		I 186 8 I 190 8 I 195 8 I 200 7 I 205 5
	420	1

ROUND NUMBER -- 490

PROJECTILE HASS (GH) -- 6.480

PROJECTILE TYPE -- SPEER, JHP, 9HH PROJECTILE VELOCITY (HPS) -- 439.2

PROJECTILE DEFORMATION					
PENETRATION DISTANCE (NM) -4 26 57 84 107 135 145	PRESENTED AREA (MM++2) 73 169 112 118 96 163 89	CRDSS-SECT AREA (MM++2) 73 169 112 124 96 175 96	I PENETRATION I PENETRATION I OSTANCE (MM) I 6 I 12 I 18 I 24 I 30 I 36 I 42	CAVITY RADIUS (RM) 37 41 44 48 51 54 57	
300			I 48 I 54 I 60 I 66 I 72 I 78	59 59 59 57 56 54	
00 DEPTH			J 84 J 90 I 96 I 103 I 109 I 215 I 121	53 51 48 45 43 39 36	
☐ 150 ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐		_	I 127 I 133 I 139 I 145 I 151	33 30 27 27 26	
50 - (			1 157 1 163 1 169 1 175 1 181 1 187 1 193	24 21 19 16 14 11	
	-50 0 VITY PROF	4	1 199 1 205 1 211	8 7 6	

ROUND NUMBER -- 491

PROJECTILE MASS (GM) -- 6.480

PROJECTILE TYPE -- SPEER, JHP. 9KK PROJECTILE VELOCITY (MPS) -- 452.63

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
EMETRATION 0 27 57 84 108 137	PRESENTED AREA (MM*#2) 63 233 267 169 145 175 143		PERETRATION DISTANCE (NM) O	CAVITY RADIUS (MM) 33 36 39 41 44 46 48	
300 I 250 -			I 38 I 42 I 47 I 52 I 57 I 62 I 66 I 71	52 52 54 54 54 54 54 54	
0 200 -			I 76 I 81 I 85 I 90 I 95 I 100 I 104 I 109	51 49 47 45 42 40 37	
그 150 는 III			114 119 123 1128 133 138	31 29 27 24 23 24 24	
0 -100	~50 0	, —	1 147 1 152 1 157 1 161 1 166 1 171 1 176	23 20 19 17 16 14	
CF	AVITY PRØF	] ] ] ]	1 180 1 185 1 190 1 195 1 200 1 204	11 10 8 8 7 7	
		422 1	1 214 ! 219	7 6 5	

ROUND NUMBER -- 496

PROJECTILE ASS (GR) -- 8-100

PROJECTILE TYPE -- SPEER, JSP, 9MM

PROJECTILE VELOCITY (MPS) -- 266.1

 			I CAVITY HEASUREHENTS		
PENETRATION DISTANCE (RM) -9 15 43 73 106 149 168	PRESENTED CR AREA &MM**2} AR 49 53 54 55 75 59	DSS-SECT EA GNH+#2) 50 54 54 56 75 59	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 18 I 23 I 28 I 32 I 37	CAVITY RADIUS (MK) 16 16 16 17 17 17 17	
300			1 42 1 47 1 51 1 56 1 61 1 65 1 70	18 18 18 17 17 17	
200 DEPTH 2000			1 75 I 80 I 84 I 89 I 94 I 98	17 17 18 18 18 18	
150 - US 100 -			1 103 1 108 1 113 1 117 1 122 1 127 1 131	19 19 19 20 20 20	
ы 50 —			I 136 I 141 I 145 I 150 I 155 I 159	21 21 22 22 22 22 22	
o   -100 C F	-50 0 SC AVITY PROFI	LE	169 173 178 183	23 23 23 23 23 23 23	
	423	] ] ]	1 197 1 202 206 1 211 1 216	22 22 21 21 20 19 18	

#### ROUND NUMBE ASA CONTINUES

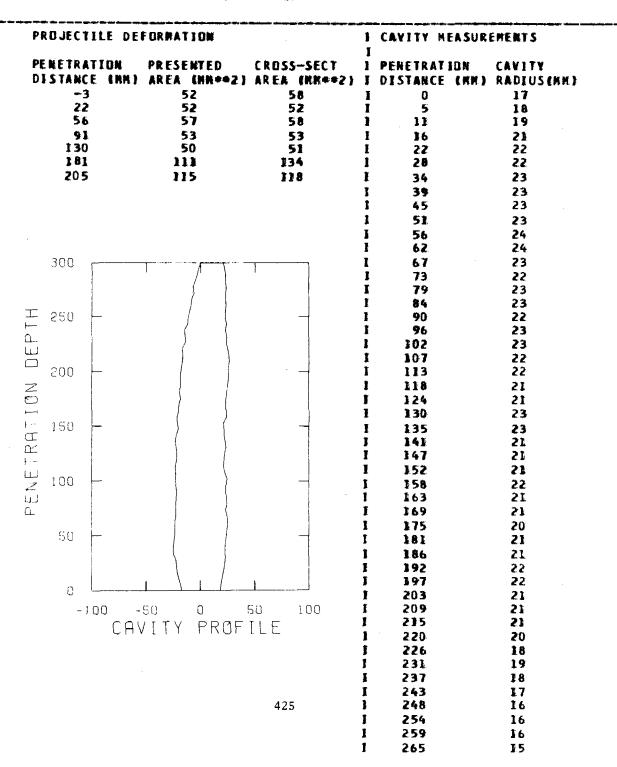
ī	<b>225</b>	18
1	230	17
1	235	16
1	239	15
I	244	14
I	249	13
1	254	12
I	258	12
Ī	263	12
Ī	268	12
1	272	11
1	277	10
I	282	10
I	286	9
Ï	291	9
I	296	7
j	301	6
Ī	305	6
i	310	5
Ī	315	3
í		•

ROUND NUMBER -- 489

PROJECTILE MASS (GM) -- 8.100

PROJECTILE TYPE -- SPEER, JSP, 9HM

PROJECTILE VELOCITY (MPS) --- 325.8:



### ROUND NUMBER 489 CONTINUED

I	271	14
1	277	15
1	282	13
1	288	13
1	293	12
1	299	10

ROUND NUMBER -- 488

PROJECTILE MASS (GM) -- 8-100 PROJECTILE TYPE --SPEER, JSP, 9HM PROJECTILE VELOCITY (MPS) --343.5

ROJECTILE DE	FORMATION		I CAVITY MEASURI	EMENTS
ENETRATION ISTANCE CHM		AREA (MMO-2)	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM)
-13 12	6 <b>9</b> 53	69	1 0	24
48	55	57 55	i 6 i 11	25 25
86	56	57	1 18	25
125	56	56	, 16 1 24	26 26
180	88	89	30	28
206	129	146	36	29
		242	1 42	30
			1 48	31
			I 54	30
		1	1 60	30
0.0.0			66	29
300	T		71	29
		] 1	1 77	29
Í		1		28
250		) '	E 89	27
		1	95	27
-	\ \ \ \			27
				27
200 -		] !		26
		. 7		27
,			125	27
·			131	26
150 -		$\dashv$	l 138 l 143	26
			149	23 22
			155	23
	}	J	161	24
100		i	167	23
1			173	22
		1	179	21
50 -	/	1	185	22
,,0		7 1	191	22
		I		22
		1	203	21
0				51
-100	CO 0	E0 100 -	215	20
		50 100		20
Ut	AVITY PROF	ILE	227	20
		I	233	21.
		I	239	21
		Į. 1		20
		1	251	18
			T : :	18 17
		427		17
		I		17
		î		16

### ROUND NUMBER 488 CONTINUED

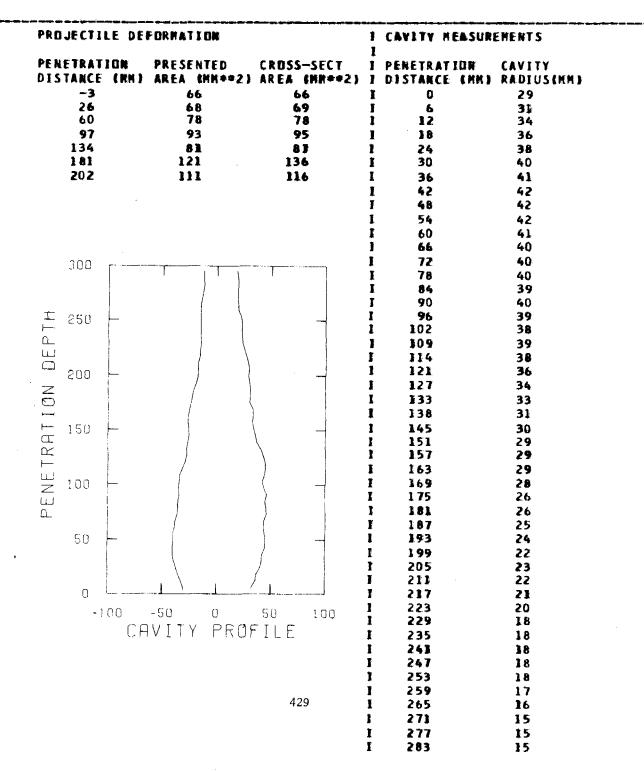
I	287	16
1	2 93	16
1	299	16
1	305	15
1	310	14
1	316	13

ROUND NUMBER -- 487

PROJECTILE MASS (GM) -- 8-100

PROJECTILE TYPE -- SPEER JSP.9MM

PROJECTILE VELOCITY (MPS) -- 384.66



### ROURD NUMBER 487 CONTINUED

3	289	15
I	295	14
1	302	13
1	308	12
1	314	32
1	320	12

ROUND NUMBER -- 486

PROJECTILE WASS (GM) -- 8.100

PROJECTILE TYPE --SPEER, JSP, 9HH PROJECTILE VELOCITY (HPS) --387.40

PROJECTILE DEFORMATION			I CAVITY MEASUREMENTS			
	ENETRATION ISTANCE (MM -2 28	PRESENTED ) AREA (HM++2) 63 70	AREA (MM=+2) 62	I I PENETRATION I DISTANCE (HM) I O I 6	CAVITY RADIUS(HH) 31 31	
	63 98 133	70 60 68	74 64 81	1 12 1 18 1 24	33 35 37	
	182 203	77 70	77 72	1 30 1 36	40 42	
				I 42 I 48	42 42	
				I 54 I 60	<b>42</b> 42	
	300			I 66 I 72	42 41	
				1 78 1 83	40 39	
Ë				1 90 1 96	39 37	
۵. الما الما				I 101 I 107 I 113	36 35	
N 0	200 -		. =	l 113 I 120 I 126	34 33 33	
T J 0				1 132 1 138	32 32	
1 1 1 1 1 1				1 143 1 150	31 29	
NE J	100		,	1 155 I 162	28 27	
PF				I 167 I 173	26 27	
	50 <del> </del>			1 185	26 24	
				I 192 I 197 I 204	22 20 19	
	0		1	209 215	18 17	
	-100 CA	SO O S VITY PROFI		221	17 17	
			]	233 239	16 16	
			· 1	245 251	15 15	
			431	257 263	14 13	
			] ]	1 269 1 275 281	12 11 11	

## ROUND NUMBER 486 CONTINUED

I	287	31
I	293	11
I	299	11
I	305	10
I	311	9
I	317	8

ROUND NUMBER -- 485

PROJECTILE WASS (GM) -- 8-100

PROJECTILE TYPE --- SPEER, JSP, 9MM PROJECTILE VELOCITY (MPS) --- 412 -39

PROJECTILE DE	FORMATION	I CAVITY MEASUREMENTS
PENETRATION DISTANCE (MM) 0 29 60 91 319 154 168	PRESENTED CROSS—SECT RREA CHM++21 AREA (HM++2 82 82 128 128 131 135 117 112 113 127 128 116 118	I     0     37       I     6     40       I     12     44       I     18     48       I     24     52       I     31     56       I     37     58       I     43     62       I     49     63
	AVITY PROFILE	

### ROUND NUMBER: 485 CONTINUED

1	299	5
ı	305	5
I	0	0

ROUND NUMBER -- 497

PROJECTILE HASS (GM) -- 8-100 PROJECTILE TYPE --SPEER RN.9MN PROJECTILE VELOCITY (MPS) --417.58

FORMATION			EMENTS
PRESENTED AREA (MM++2) 59 66 74 124 145 104	CROSS-SECT AREA (MH**2) 59 66 74 125 146 106	PENETRATION DISTANCE (MM)  O  1	29 29 30 31 31 32 35 35
	] 	I 47 I 52 I 57 I 62 I 66	37 37 37 37 37 38 37 36
		83 F 85 F 90 F 95 F 300 F 104	36 37 37 36 35 35
		1 114 1 119 1 123 1 128 1 133	32 32 32 30 32 33 34
		147 151 157 161 166 171	33 33 32 32 33 33 33
	11 F 11 11 11 11 11 11 11 11 11 11 11 11	180 185 190 195 199 204 209 214	33 31 30 30 30 30 30 30 30
	PRESENTED AREA (MH**2) 59 66 74 124 145 104 105	PRESENTED (ROSS-SECT AREA (MH**2) 59 59 66 66 74 74 124 125 146 104 106 105 106	PRESENTED   CROSS-SECT   PENETRATION   AREA (MH0*2)   I PENETRATION   DISTANCE (MM)   S9   59   1   0   0   0   0   0   0   0   0   0

#### ROUND NUMBER 497 CONTINUED

I	228	28
I	233	28
1	23B	28
I	242	27
3	247	26
1	251	27
Ì	256	27
I	261	27
Ī	266	25
ī	273	26
I	276	25
i	280	24
ĵ	285	24
ı	290	24
I	295	23
Ī	299	21
I	304	21
j	309	20
Ī	314	19
Ī	318	18
i	7,0	

ROUND NUMBER -- 506

PROJECTILE MASS (GM) -- 7.128

PROJECTILE TYPE -- SPEER, JHP, 357 PROJECTILE VELOCITY (MPS) -- 238.05

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
-11	AREA (MM**2) 46	AREA (MM**2) 46	I PENETRATION I DISTANCE (MM) I O	RADIUS (MM)
3 <b>31</b>	57 57		I 6 I 12	12 15
56	5.5 5.5		1 12 1 17	16
82	<b>57</b>		I 24	17
117	50		I 30	1.8
134	50		1 36	18
			I 42	18
			I 48 I 54	17 17
			I 60	17
			I 66	16
			<b>T</b> 72	16
300	I I		I 78	16
	7.3		I 84	16
	) (		J 90 I 95	15
∓ 250 <u>⊢</u>			1 95 1 102	1 4 1 4
<b>├</b>	/ \		102 1 108	15 15
G . i.i.i	/ }	:	I 114	15
7.3		;	I 120	13
UUU ►		· ·	1 126	12
			I 132	12
`. ⇔' ———			I 138 I 144	12 12
± 150 ±	\ \	i	I 150	13
<b></b>		ì	I 156	12
<u>1</u> 1		<u>.</u>	162	12
			168	12
Z 100 F			174	11
Lid			180	11
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100				5 <b>7</b>
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		437	258	75
		ı	264	5
		I		5
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		4	200	<del>-</del>

ROUND NUMBER -- 392

# PROJECTILE MASS 16H1 -- 7.128

PROJECTILE TYPE -- SPEER, JHP. 38CAL PROJECTILE VELOCITY (MPS) -- 258.78

ROJECTILE DE	FORMATION		I CAVITY MEASURI	EKENTS	
-10	PRESENTED AREA (MM**2) 55	AREA (MM+2) 56	I I PENETRATION I DISTANCE (MM) I O	15	
<b>8</b> 32	87 101		1 4	16	
5 <u>9</u>	115	101 116	I 9 I 14	18 20	
85	109	109	; 14 ! 18	22	
120	זר	87	23	24	
137	74	84	1 28	26	
			I 32	27	
			37	28	
			1 42	28	
			47	28	
			I 51	28	
300			56	27	
			l 63 I 66	26	
	1.1		i 66 i 73	24 22	
E 250 -			75	22	
250			60	22	
	/		85	22	
	}			21	
<sup>™</sup> 288 ⊢		· - 1	94	20	
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	/ /		109	18	
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<u>#</u> 100	}	\		18	
Z 100		1	·	16	
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<del>'</del> j	/ \		146	14	
50 <del> </del>		<b>→</b> i	151	14	
	( )		156	14	
	\ /			13	
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0				11	
-100	-50 0	50 100 <b>1</b>	175	10	
	AVITY PROF	- II F		10	
C,	111111101			10	
				10	
		j	- 1	10	
		I	<b>—</b>	9	
		438 I		10	
		438 I		10 9	
		]		8 A	
			222	v	

# ROUND NUMBER 392 CONTINUED

3	227	. 6
I	232	6
I	236	6
1	241	6
ï	246	6
1	250	6
I	256	6
1	260	2
I	63	2
1	270	6
I	274	5
I	279	6
ľ	284	5
ľ	288	5
1	293	5
I	298	4
ì	302	5
I	308	5
1	312	4
7		

ROUND NUMBER -- 505

PROJECTILE MASS (GM) -- 7.128

PROJECTILE TYPE -- SPEER, JHP, 357

PROJECTILE VELOCITY (MPS) -- 295.66

PROJECTILE DE	FORMATION	*	I CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM) -7 14 41 64 91 122 136	PRESENTED AREA (MM**2) 57 101 106 130 128 88 79	CROSS-SECT AREA (MM**2) 57 103	I PENETRATION I DISTANCE (MM) I O 6 1 2 17 17 1 23 1 29 1 35 1 41	CAVITY	
300 PENETRATION DEPTH 250 - 100 CA	-50 O VITY PROF	50 10 <b>0</b> ILE	47 53 59 65 71 77 83 89 95 100 107 112 118 124 130 136 142 148 154 160 166 172 178 183 190 196 201 207 213 219 225 231 237 243 249 255	32 32 32 31 29 27 25 23 23 22 21 20 19 18 16 15 13 12 11 10 10 10 10 10 10 10 10 10 10 10 10	

ROUND NUMBER -- 391

PROJECTILE MASS (GM) -- 7-128

PROJECTILE TYPE -- SPEER, JHP, 3 BCAL PROJECTILE VELOCITY (MPS) -- 356.01

P	ROJECTILE DE	FORMATION	I	= =	EMENTS
	-9	AREA (MK+=2) AREA	73 1	PENETRATION DISTANCE ARM) O	20
	16		90 1 190 1	4 <b>9</b>	24 27
	44 72		166 ]	14	32
	97		84 . ]	19	36
	B27	183 1	195 1	23	39
	139	161 1	191 ]	28	42
		•	) 1	33 37	45 47
			,		48
					48
			Ī		48
			1	56	48
	300			61	48
				66 70	46 44
					43
<u>⊐</u> .	250 -		→ i		42
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7	> 200	<i>/ /</i>	l i		36
Ē	5				34
PENETROTIAN DEP	<b>-</b> √		Ì	113	32
. H	150 -			118	31
<u> </u>		}	1		29
<del>  -</del>	_		}	127	28
<u>نا</u>	± 100 ⊢			132 137	28 26
					26
ū			i		25
	<i></i>		1		23
	50 🗕				22
				160	20 19
				165 170	18
	0				16
	-100	-50 0 50	100		15
		VITY PROFILE	: 1	184	13
	CII	VIII (NOI IE.			12
			]		11
			]		10 8
			Í		8
			441		8
			ī		7
			1		7

### ROUND NUMBER 391 CONTINUED

I	226	8
I	231	7
I	235	7
F	240	5
F		

PROJECTILE TYPE -- SPEER, JHP, 357MAG

PROJECTILE VELOCITY (MPS) --385.88

DO 0 15 C T 1 1 5	DEFORMATION		I CAVITY MEASU	SEMENTS	
rkojeciile	DEFORMATION		I CAVITY MEASU	KEMENIS	
PENETRATIO DISTANCE ( -5 21 50 77 101 131 143	N PRESENTED MM) AREA (MM**2) 112 240 169 157 182 173 133	112 240 170 162 183 174	I PENETRATION I DISTANCE (MM I 0 I 6 I 12 I 18 I 24 I 30 I 36 I 42 I 48 I 54	CAVITY ) RADIUS (MM) 30 34 38 42 44 45 48 49 49	
300	<u> </u>	<u> </u>	I 60 I 67 I 72 I 78	47 45 43 41	
工 250 上 6			I 84 I 91 I 96 I 103 I 109	39 36 35 31	
000 E			I 109 I 115 I 121 I 127 I 133	28 25 25 24 23	
150 L			I 139 I 145 I 151 I 157	20 19 18 17	
PENETR 100			I 163 I 169 I 175 I 181	16 14 13	
50 -			I 187 I 193 I 199 I 205	8 7 7 7	
0 L. 100		50 100	I 211	6	
	CAVITY PROF	FIL.E			

PROJECTILE TYPE -- SPEER, JHP, 38CAL PROJECTILE VELOCITY (MPS) -- 396.24

PENETRATION PRESENTED CROSS-SECT I PENETRATION DISTANCE (MM) AREA (MM**2) AREA (MM**2) I DISTANCE (MM**2) I	(MM) RADIUS (MM) 33 37 40 43 46
I 38 I 42	48 49 51 53 54
300  H 250  H 250  A 1 56  I 61  I 66  I 71  I 75  A 89  I 94  I 99  I 108  I 108  I 108  I 113  I 118  I 123  I 127  I 137  I 141  I 146  I 155  I 160  I 165  I 170  CAVITY PROFILE  I 184  I 189  I 193  I 203  I 203	54 54 54 54 55 50 49 48 47 45 43 40 38 36 33 31 30 27 24 22 20 18 17 16 15 14 14 14 14 14 14 14 14

# ROUND NUMBER 426 CONTINUED

I	226	9
Ī	231	8
Ĭ	236	7
I	240	6
1	245	5
r		

PROJECTILE TYPE -- SPEER, JHP, 357MAG

PROJECTILE VELOCITY (MPS) --426.42

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM) -2 27 58 86 115 145 157	PRESENTED AREA (MM**2) 79 237 158 136 136 137 165	CROSS-SECT AREA (MM**2) 79 237 189 155 138 177 166	I PENETRATION I DISTANCE (MM) I 0 6 I 11 18 I 23 I 30 I 35 I 41 I 47	29 32 37 42 46 48 49 50	
PENETRATIUN DEPTH  200  -100  CH  CH  CH  CH  CH  CH  CH  CH  CH	-50 O AVITY PROF	50 100	53 60 65 71 77 83 89 1 95 1 101 107 1 113 1 19 1 125 1 131 1 137 1 43 1 49 1 55 1 61 1 67 1 72 1 79 1 85 1 91 1 97 2 02 2 108 2 14 2 20 2 26 2 32	51 51 49 48 47 44 40 35 33 30 25 26 23 20 18 17 15 16 15 13 12 10 9 8 7 6 5	

PROJECTILE TYPE --- SPEER, JHP, 38CAL PROJECTILE VELOCITY (MPS) --- 429-77

PROJECTILE DE	FORMATION	- هنده مکری فات فات ماه چهد مکرندگان د -	CAVITY MEASURE	EMENTS
PENETRATION DISTANCE (MM) -2			I I PENETRATION I DISTANCE (MM) I O	CAVITY RADIUS(MM) 37
25	106		I 4	41
58	122		9	45
89 118	122 132	122 135	l 14 l 19	49 51
152	132		23	53
167	123	123	T 28	55
			1 33	57
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		•	42	59
		•	I 47 I 52	59 59
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300		· · · · · ·	i 61	58
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	<u> </u>	;	71	57
王 250			75	56
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			94	47
200 -		7	99	44
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LU .00			1 132	31
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	F0 8 M	,	175	22
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C	AVITY PROFI		=	20
			188	18
			193	17
		•	1 19B	16
			1 203 1 207	14 13
		77/	212	12
		j		11
		1	222	10

### ROUND NUMBER 390 CONTINUED

1	226	10
I	231	8
I	236	7
1	240	7
1	245	7
1	250	6
1	255	6
Ī	259	6
ī	264	6

PROJECTILE TYPE -- SPEER, JHP, 38CAL PROJECTILE VELOCITY (MPS) -- 440.44

PF	ROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	-
	ENETRATION (STANCE (MM) -1 27 58 87 112 141 154	PRESENTED AREA (MM**2) 115 356 99 125 123 112 111	CROSS-SECT AREA (MM**2) 115 357 107 130 125 114	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 19 I 23 I 28 I 33	CAVITY RADIUS (MM) 43 45 48 51 53 54 56	
H H H	300 -	T		I 38 I 42 I 47 I 52 I 57 I 62 I 66 I 71 I 76 I 81	58 59 60 60 60 59 59 58 57	
ENETRATION D	200 <u> </u>			I 86 I 90 I 95 I 100 I 104 I 109 I 114 I 119 I 124 I 129 I 133	52 52 50 49 46 44 39 35 34 32	
	50	A L A so o si ITY PROFI	0 100 L.E.	I 138 I 143 I 147 I 152 I 157 I 161 I 166 I 171 I 176 I 181	28 26 23 19 19 17 15 14	
			449	I 185 I 190 I 195 I 200 I 205 I 209 I 214 I 219 I 224	12 11 10 9 8 7 6 5	

PROJECTILE TYPE -- SPEER, JHP, 38CAL

PROJECTILE VELOCITY (MPS) --448.06

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
PENFTRATION DISTANCE (MM) -2 27 56 86 112 142 153	PRESENTED AREA (MM**2) 124 301 102 102 101 106 112	CROSS-SECT AREA (MM**2) 124 201 102 102 101 108	I PENETRATION I DISTANCE (MM) I 0 I 5 I 9 I 14 I 18 I 23 I 28 I 33 I 37	38 48 51 53 56 58 60	
PENETRATION DEPTH 250 0 -100 CL	AVITY PRO	50 100 FILE.	I 43 I 47 I 52 I 57 I 61 I 66 I 71 I 76 I 81 I 86 I 90 I 95 I 100 I 105 I 109 I 114 I 119 I 124 I 128 I 133 I 138 I 143 I 147 I 152 I 157 I 162 I 166 I 172 I 176 I 181 I 186 I 190 I 195 I 190 I 195 I 200 I 205 I 209 I 214 I 219	62 63 62 61 61 60 59 58 57 56 55 54 51 49 47 44 41 36 35 31 27 26 28 26 24 21 20 16 15 13 11	

I	228	5
Ţ	0	0
I	0	0

PROJECTILE TYPE -- SPEER, JHP, 357 PROJECTILE VELOCITY (MPS) -- 498.04

PROJECTILE DE	FORMATION	±	I CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM)  1 34 66 93 118 144 155	PRESENTED AREA (MM**2) 98 215 121 117 90 214 195	AREA (MM**2) 99 213 122 117 91 215 206	PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 19 I 24 I 29 I 33 I 38 I 43 I 48	50 52 55 58 62 64 66 66 70 71	
PENETRATION DEFTH  -100 -100 -100 -100 -100 -100 -100 -1	SAVITY FRO	50 100 FILE 452	I 52 I 57 I 62 I 65 I 71 I 76 I 81 I 86 I 90 I 105 I 109 I 114 I 119 I 124 I 128 I 133 I 136 I 143 I 148 I 152 I 157 I 162 I 166 I 171 I 176 I 181 I 185 I 190 I 195 I 200 I 209 I 214 I	72 73 72 72 71 70 65 55 55 44 41 33 33 22 20 11 11 11 11 11 11 11 11 11 11 11 11 11	

PROJECTILE TYPE -- SPEER, JHP, 357

PROJECTILE VELOCITY (MPS) --518.46

PENETRATION PRESENTED CROSS-SECT I PENETRATION CAVITY DISTANCE (MM) AREA (MM**2) AREA (MM**2) I DISTANCE (MM) RADIUS(MM)  1 148 148 I 0 47 33 323 323 I 4 51 65 127 126 I 9 55 91 132 134 I 14 59 116 125 125 I 19 61 142 165 166 I 23 64 151 134 134 I 28 66 I 33 68 I 37 69 I 42 70 I 47 70 I 51 70 300 I 56 71 I 66 69 I 70 68 I 70 68 I 70 68 I 70 68 I 70 68	
I 47 70 I 51 70 I 56 71 I 61 70 I 66 69 I 70 68 I 75 67	
1 80 65 63   1 89 61   1 94 59   1 98 56   1 103 55   1 108 51   1 113 48   1 113 48   1 113 48   1 122 43   1 122 43   1 132 35   1 136 32   1 141 31   136 32   1 141 31   146 28   1 155 24   1 160 20   1 164 18   1 160 20   1 164 18   1 160 20   1 164 18   1 160 20   1 164 18   1 169 16   164 18   1 169 16   167   1 169 16   169 1	

PROJECTILE TYPE -- SPEER, JHP, 3 BCAL PROJECTILE VELOCITY (MPS) -- 229.51

PENETRATION DISTANCE (RRH) AREA (RH8-02) AREA (RH8-02) I PENETRATION CAVITY CAVITY 11 58 55 55 1 0 12 12 13 14 55 55 55 1 0 12 12 13 14 14 15 15 15 17 15 15 17 15 16 16 16 16 16 16 16 16 16 17 18 18 18 18 19 19 136 15 19 18 18 18 19 19 136 15 19 18 18 19 19 136 15 19 18 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19	PROJECTILE DEFORMATION	I CAVITY HEASUREMENTS
THE SET OF THE SET OF		
56 57 59 I 9 14  84 56 63 I 18 18  119 58 60 1 23 19  136 53 63 I 28 20  1 32 21  1 47 22  1 47 22  1 52 22  1 56 21  1 66 19  1 70 18  1 89 18  1 106 17  1 85 19  1 89 18  1 106 17  1 113 16  1 113 17  1 127 17  1 132 16  1 127 17  1 132 16  1 127 17  1 132 16  1 141 17  1 156 16  1 170 16  1 170 16  1 170 16  1 170 17  1 180 17  1 180 17  1 180 17  1 180 17  1 180 17  1 180 17  1 180 17  1 180 17  1 180 17  1 180 17  1 180 17  1 180 17  1 190 18  1 1	<b>-7</b> 55 55	1 0 12
58		
119 58 60 1 23 19 136 53 63 1 28 20 1 32 21 1 47 22 1 47 22 1 52 22 1 52 22 1 56 61 1 70 18 1 66 19 1 70 18 1 85 19 1 88 19 1 88 19 1 88 19 1 88 19 1 88 19 1 88 19 1 100 17 1 113 16 1 113 16 1 113 16 1 113 16 1 113 16 1 113 16 1 113 16 1 113 16 1 113 16 1 113 16 1 113 16 1 113 16 1 113 16 1 113 16 1 113 17 1 127 17 1 132 16 1 137 17 1 141 17 1 156 16 1 166 16 1		
119 58 60 1 23 19 136 53 63 1 28 20 1 37 21 1 42 22 1 47 22 1 52 22 1 66 19 1 70 18 1 75 17 1 80 17 1 85 19 200 1 89 18 1 103 18 1 103 18 1 103 18 1 103 18 1 103 18 1 103 18 1 103 18 1 103 18 1 103 18 1 103 18 1 103 18 1 103 18 1 104 17 1 113 16 1 113 16 1 114 17 1 123 17 1 141 17 1 141 17 1 141 17 1 141 17 1 141 17 1 151 17 1 160 16 1 160 16 1 160 16 1 160 16 1 160 16 1 160 16 1 160 16 1 160 16 1 189 15 1 193 15 1 193 15 1 193 15 1 193 15 1 193 15 1 193 15 1 193 15 1 198 14 1 208 14 1 208 14 1 208 14 1 208 14 1 208 14		
136 53 63   28 20   1 37 21   1 42 22   1 47 22   1 52 22   1 52 22   1 52 22   1 51 20   1 66 19   1 70 18   1 75 17   1 85 19   1 85 19   1 85 19   1 85 19   1 85 19   1 85 19   1 85 19   1 100		
1 37 21   1 42 22   1 47 22   1 52 22   1 56 21   1 66 19   1 66 19   1 75 17   1 80 17   1 80 17   1 80 17   1 80 17   1 80 17   1 80 17   1 80 17   1 108 17   1		
1   37   21   1   42   22   1   47   22   1   54   21   1   56   21   1   56   21   1   56   21   1   56   21   1   56   21   1   56   1   1   1   1   1   1   1   1   1	130 23	
1		
1   52   22   1   56   21   1   56   21   1   56   21   1   56   21   1   56   20   1   1   70   18   1   70   18   1   75   17   1   18   18   19   18   19   18   19   18   19   18   19   18   19   18   19   18   19   18   19   18   19   18   19   19		1 42 22
300  H 250  H 250  H 250  I 66  I 70  I 80  I 75  I 85  I 94  I 89  I 108  I 108  I 108  I 113  I 113  I 16  I 113  I 16  I 113  I 16  I 114  I 17  I 141  I 17  I 141  I 17  I 146  I 17  I 156  I 16  I 170  I 16  I 170  I 16  I 170  I 16  I 189  I 193  I 193  I 193  I 193  I 193  I 193  I 198  I		
## 250		I 52 22
1 66 19	300	
1 70		
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1 80	T 050	
1	± 250	
1		
200   1 94 18   18   199 18   103 18   17   106   17   113   16   17   17   17   17   17   17   17	147	
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100		
1 113 16 1 118 17 1 123 17 1 123 17 1 132 16 1 137 17 1 141 17 1 144 17 1 156 16 1 166 16 1 166 16 1 166 16 1 170 16 1 170 16 1 170 16 1 170 16 1 189 15 1 189 15 1 193 15 1 198 14 1 208 14 1 208 14 1 208 14 1 208 14 1 208 14 1 208 14		
1 118		- •
1   123   17   17   17   18   18   18   18   18	150 -	
SU		
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SU	ш 100	
SU		
SU		
1 151 17 1 156 16 1 160 16 1 165 16 1 170 16 1 170 16 1 179 16 1 189 15 1 193 15 1 198 14 454 1 208 14 1 212 13 1 217 13		
1 156 16 1 165 16 1 170 16 -100 -50 0 50 100 1 175 16 CAVITY PROFILE 1 184 15 1 189 15 1 193 15 1 198 14 1 203 14 454 1 208 14 1 212 13 1 217 13	5U - 1 -	
I 160 16 1 165 16 1 170 16 -100 -50 0 50 100 I 175 16 CAVITY PROFILE I 184 15 1 189 15 1 193 15 1 198 14 1 203 14 454 I 208 14 I 212 13 I 217 13		
1 165 16 1 170 16 -100 -50 0 50 100 1 175 16 CAVITY PROFILE 1 184 15 1 189 15 1 193 15 1 198 14 1 203 14 1 212 13 1 217 13		
-100 -50 0 50 100 I 175 16  CAVITY PROFILE I 189 15 I 193 15 I 198 14 I 203 14 I 212 13 I 217 13		
CAVITY PROFILE  1 184 15 1 189 15 1 193 15 1 198 14 1 203 14 454 1 208 14 1 212 13 1 217 13		
CAVITY PROFILE  I 184 I 189 I 193 I 198 I 203 I 4 I 208 I 212 I 31 I 217 I 31	-100 -50 0 50 100	
1 189 15 1 193 15 1 198 14 1 203 14 454 1 208 14 1 212 13 1 217 13		
I 193 15 I 198 14 I 203 I4 454 I 208 14 I 212 13 I 217 13		
I 198 14 I 203 14 454 I 208 14 I 212 13 I 217 13		
1 203 14 454 I 208 14 1 212 13 1 217 13		
454 I 208 14 I 212 13 I 217 13		
1 212 13 1 217 13		
1 217 13		
1 222 12		
) LEL AL		1 617 13 1 222 12
		,

# ROUND NUMBER 398 CONTINUED

I	227	11
I	231	13
Ī	236	10
1	241	9
I	246	8
I	251	7
I	255	7
1	260	7
Ĭ	265	7
1	270	6
I	274	6
1	279	. 6
I	2.83	6
1	289	5
Ì	293	5
1	298	5
I	303	6
Ī	307	6
}	312	3
1		_

PROJECTILE TYPE -- SPEER, JHP, 38CAL PROJECTILE VELOCITY (MPS) -- 316.08

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENFTRATION DISTANCE (MM) -6 16 45 72 100 134 151	PRESENTED AREA (MM**2) 59 154 124 120 134 129 126	AREA (MM**2) 59	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 19 I 23 I 28 I 33 I 38 I 42	CAVITY RADIUS (MM) 21 24 26 30 32 34 35 37 39
	-50 O PROF	50 100 TLE	1 42 1 47 1 52 1 61 1 66 1 71 1 80 1 85 1 90 1 104 1 109 1 104 1 109 1 114 1 123 1 128 1 128 1 133 1 142 1 147 1 152 1 156 1 161 1 166 1 170 1 175 1 185 1 190 1 194 1 199 1 194 1 199 1 194 1 199 1 194 1 199 1 194 1 199 1 208 1 218 1 218 1 218	39 38 38 37 36 35 35 35 35 31 30 27 26 27 28 29 30 30 29 28 27 25 24 22 20 19 17 15 14 14 13 12 12 11 11 11

# ROUND NUMBER 432 CONTINUED

I	228	g
I	232	9
I	237	8
I	242	7
I	247	7
I	251	7
Ĭ	256	7
I	261	7
I	<b>26</b> 6	6
I	270	6
Ī	2 <b>7</b> 5	5
I-	280	5
I	285	5
I	290	5
I	294	5
I	299	5
I	303	2
*		

ROUND KUNBER -- 397

PROJECTILE HASS (GH) -- 8.100

PROJECTILE TYPE -- SPEER, JMP, 38CAL PROJECTILE VELOCITY (MPS) -- 339.24

PROJECTILE DE	FORMATION	I CAVITY MEASUREMENTS	
PENETRATION DISTANCE (MM) -8 15 44 72 99 133 148	PRESENTED CRUSS-SEC AREA (MM**2) AREA (MM* 75 76 193 193 123 324 103 304 108 115 132 132 110 123	1 DISTANCE (MM) RADIUS(MM) 1 0 21 1 4 24 1 9 27 1 14 30 1 19 34 1 23 36 1 28 37 1 33 41	
PENETRATION DEPTH 200 -100 Ct	-50 0 50 10 PVITY PROFILE	1 37 43 1 42 44 1 47 44 1 52 45 1 56 44 1 61 44 1 66 43 1 71 42 1 75 42 1 80 41 1 85 39 1 90 37 1 94 35 1 104 33 1 109 35 1 113 34 1 118 33 1 123 31 1 123 31 1 123 31 1 123 27 1 137 25 1 142 23 1 147 21 1 152 21 1 156 20 1 161 19 1 166 16 1 170 16 1 175 16 1 180 16 1 180 16 1 180 16 1 185 15 1 189 15 1 194 14 1 199 15	

#### ROUND MUMBER 397 CONTINUED

I	228	13
1	232	12
1	237	10
ľ	242	8
I	246	6
1	253	5
Ī	256	5
I	263	5
I	266	6
1	270	6
1	275	5
Ì	280	P

PROJECTILE TYPE -- SPEER, JHP, 38CAL PROJECTILE VELOCITY (MPS) -- 382.52

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	-
PENETRATION DISTANCE (MM) -4 21 54	82 278 117	CROSS-SECT AREA (MM**2) 82 283 118	I PENETRATION I DISTANCE (MM) I O I 4 I 9	CAVITY RADIUS(MM) 31 35 39	
84 112 145 101	128 104 114 100	101	I 14 I 18 I 23 I 28 I 33 I 37	43 46 48 50 52 53	
300			I 42 I 47 I 52 I 56 I 61 I 66	54 54 55 54 54 52	
1 250 - 200 - 2		<del>- </del>	I 71 I 75 I 80 I 85 I 89 I 94 I 99	52 51 49 48 47 45 43	
150 - 150 - N			I 104 I 108 I 113 I 118 I 123 I 127	42 40 40 38 37	
20 - EN 100 -			I 132 I 137 I 142 I 146 I 151 I 156	34 33 31 31 30 27	
	J L Z -50 O VITY PROF	50 100 TLE	I 161 I 165 I 170 I 175 I 179 I 184	24 23 23 22 21 19	
		460	I 189 I 194 I 199 I 203 I 208 I 213 I 217 I 222	18 18 16 15 13 13 12	

# ROUND NUMBER 431 CONTINUED

I	227	12
I	231	11
I	236	9
I	241	7
I	246	7
I	251	7
I	255	6
I	260	6
I	265	6
I	270	6
I	274	6
I	279	6
I	284	6
I	288	6
I	293	6 5

PROJECTILE TYPE -- SPEER, JHP, 38CAL PROJECTILE VELOCITY (MPS) -- 406.91

DISTANCE (MM) AREA (MM**2) AREA -1 132 1 23 272 2 56 148 1 86 127 1 115 118 1 149 133 1	32 I 0 72 I 4 48 I 9 31 I 14 18 I 18 33 I 23 48 I 28 I 33	36 40 44 46 50 52 55 56
300 HL 250 HL 200 ND LL 20	I 38 I 42 I 47 I 52 I 57 I 61 I 66 I 71 I 75 I 80 I 85 I 90 I 94 I 99 I 104 I 109 I 113 I 118 I 123 I 128 I 128 I 137 I 142 I 147 I 152 I 147 I 152 I 156 I 161 I 166 I 171 I 100 I 175	58 59 59 59 59 59 58 57 57 55 54 51 47 45 41 37 35 34 32 38 26 27 22 21 20 19

#### ROUND NUMBER 430 CONTINUED

I	228	12
I	232	11
I	237	9
I	242	8
1	247	8
I	252	7
I	256	6
I	261	6
I	266	6
Ī	271	6
I	275	5
I		

PROJECTILE TYPE --- SPEER, JHP, 3 BCAL PROJECTILE WELDCITY (MPS) -- 435.86

DISTANCE (RM) AREA (MM+2) AREA (MM+2) 1 DISTANCE (MM) R 4 183 183 1	AVITY ADIUS(MM) 39 44 48
34 125 125 1 4 66 163 166 I 9 97 150 151 I 14 125 148 149 1 19 159 141 141 I 23 173 128 129 1 28 I 33 I 38 I 42	52 55 58 59 61 61
300 1 47 1 52 1 57 1 62	63 61 60 60
1 66	59 58 57 56
1 76 1 81 1 86 1 91 1 95 1 100 1 105	54 52 50 48
☐ 150 ☐ I 105 ☐ I 115 ☐ I 115 ☐ I 115 ☐ I 119	46 43 41 39
150 U 150 U 115 U	39 37 36 34
50 - I 148 I 153 I 158	32 31 29 28
1 162 1 167 1 172 -100 -50 0 50 100 1 177	26 25 24 23 23
CAVITY PROFILE # 188 1 186 1 191 1 196 1 201	24 23 21 20
1 205 464 I 210 1 215 1 220 1 225	18 16 16 15

#### ROUMD MUMBER 396 CONTINUED

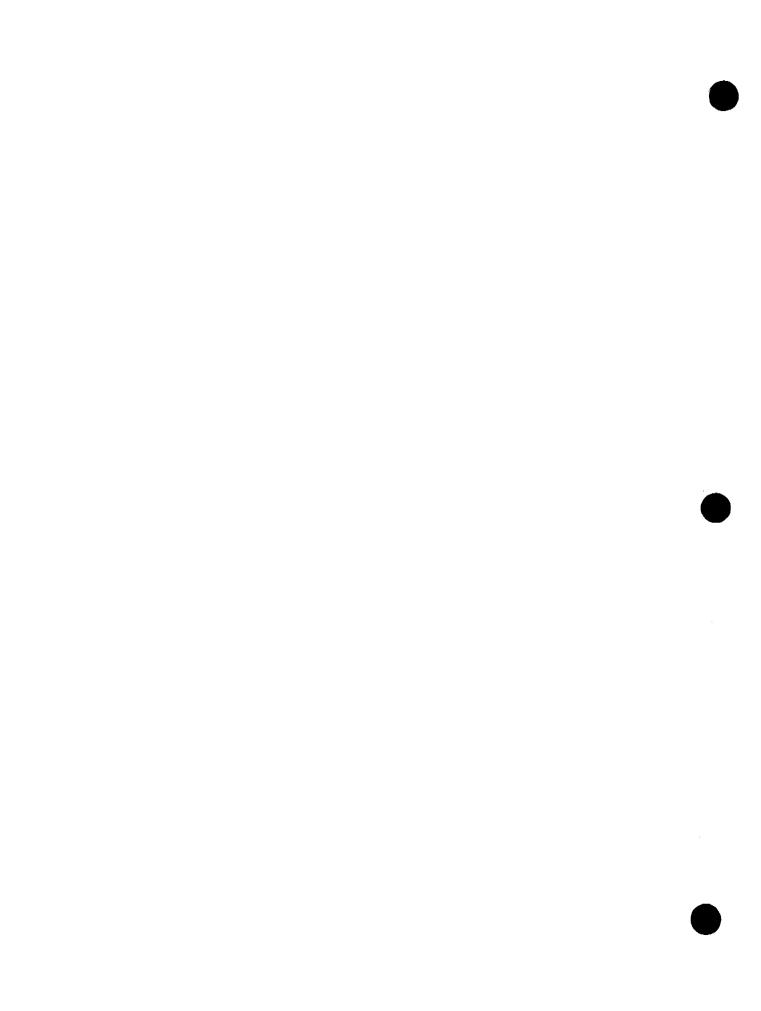
1	229	13
1	234	12
I	239	9
I	244	8
ı	249	8
I	253	7
1	258	6
1	263	6
I	268	5
I	273	5
I	277	5
Ī		

PROJECTILE TYPE --SPEER, JHP, 3 8CAL PROJECTILE VELOCITY (MPS) -231.65

PROJECTILE DEFORMATION I CAVITY MEASUREMENTS	
PENETRATION PRESENTED CROSS-SECT I PENETRATION CAVITY DISTANCE (NN) AREA (NN+=2) AREA (NN+=2) I DESTANCE (NN) RADIUS (NN+=2) NN NN NN NN NN NN NN NN NN NN NN NN NN	EMM )
300   1 47 25 25 1 52 25 1 57 25 1 61 24 1 66 24 1 71 22	
工 250	
200 - I 94 17 I 99 19 19 104 18 17 I 108 17 I 113 16	
☐ I 118	
1 137 15 1 141 16 1 146 15 1 151 17 1 155 - 17	
1 160 16 1 165 15 1 170 15 1 174	
-100 -50 0 50 100 i 179 i5 CAVITY PROFILE I 184 14 I 189 14 I 193 13 I 196 13	
466 I 212 I0 I 217 9 I 222 9	

#### ROUMD MUMBER 401 CONTINUED

1	226	ý
1	233	9
Ī	236	9
Ĭ	241	•
I	246	
Ī	250	8
ì	255	8
1	259	7
1	264	8
I	269	7
1	274	7
ī	278	7
3	283	
I	288	6 7 7
1	292	7
I	297	6
1	302	6
I	306	6 5



1	227	12
I	232	11
I	237	11
I	242	10
I	246	10
I	251	9
Ī	256	8
I	261	8
I	265	7
I	270	7
I	275	7
I	280	6
I	285	6
I	289	7
I	294	7
I	299	6
I	304	6
I	308	7
I	313	5
T		

ROUND NUMBER -- 400

PROJECTILE MASS (GM) -- 9-072

PROJECTILE TYPE -- SPEER, JHP, 38CAL PROJECTILE VELOCITY (MPS) -- 315.47

PROJECTILE DE	FORMATION	<del></del>	CAVITY HEASURI	EMENTS
PENETRATION DISTANCE (RM) -8 16 43 72 800 134 150		ROSS-SECT   1 REA (RM++2)   1 60   166   1 201   1 167   158   1 153   152   1	PERETRATION DISTANCE (MM)  0 5 13 18 18 24 30 36 41	CAVITY RADIUS (MM) 21 23 27 32 36 38 40 41
388	<del></del>	] ] 1	54 60 66 72 1 78 1 84	42 41 42 41 39 38
O 200 -				37 37 36 34 33 32 30
NE T RA T 100 -			1 132 1 138 1 144 1 150	27 25 25 25 23 21 23
50			1 174 1 180 1 186 1 192 1 198	21 20 19 17 16 14
0 L	-50 0 5 RVITY PRØFI	100 100 LE	234 240 246	12 12 10 10 9
		470 J	258	10 9 4

PROJECTILE TYPE -- SPEER, JHP, 38CAL PROJECTILE VELOCITY (MPS) -- 377.95

990	IFCT	I) F	DIAMET	TER (	CMI	 9.068
PRU	J E し 1 .	110	DIAME	1 CK 1	CM)	 74 000

PROJECTILE DE	FORMATION		CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM) -2 23 55 85 115 152 170	PRESENTED AREA (MM**2) 89 216 188 161 169 172 167	90 II 217 II 188 II 170 II 188 II 172 II 167 II	PENETRATION DISTANCE (MM) 0 5 9 14 19 24 -28 33 38 43 48	CAVITY RADIUS (MM) 33 36 40 43 46 48 50 52 54 53	
300			57 62 67	56 57 57 57 57	
H 250		_   I	76 81 86	56 56 55 53	
00 DE			96 100 105 110	52 51 50 49	
PENETRATION 001 001 001 001 001 001 001 001 001 00			119 124 129	48 46 43 39	·
H 100 -			138 143 148	37 35 34 31	
50			158 163 167	29 28 27 28 26	
0 L -1.00 CA	-50 0 NITY PRØF	50 100 I	177 182 187	25 25 24 22	
	· · · · · · · · · · · · · · · · · · ·	I I I	196 200 206	21 20 20 19	
		471 I	215 1 220	19 18 18	

## ROUND NUMBER 433 CONTINUED

I	230	17
I	234	15
I	239	14
Ī	244	14
I	249	13
Ī	254	11
I	258	11
1	263	10
I	268	9
I	273	9
I	278	8
1	283	7
ľ	287	8
Ī	292	7
İ	297	7
I	302	7
I	307	7
1	311	7
I	316	6
T		

PROJECTILE TYPE --- SPEER, JHP, 38CAL PROJECTILE VELOCITY (RPS) -- 432-21

PROJECTILE DE	FORMATION	<del>نىسى كە جەنبى بىرىسىدىن بارىك خورىسى</del> د	I CAVITY REASUR	ENENTS
PERETRATION DISTANCE (NA) -3 27 62 97 131 172 391	PRESENTED AREA 688++2) 68 215 106 96 93 92 88	CROSS—SECT AREA (RH++2) 68 219 114 107 104 93	I PENETRATION I DISTANCE (MR) I 0 I 4 I 9 I 14 I 19 I 23 I 28 I 33 I 37	CAVITY RADIUS (NN) 37 41 45 48 51 54 55 56
	-so o VITY PROF	₹ I L E 473	1 42 1 47 1 52 1 56 1 61 1 66 1 71 1 75 1 80 1 85 1 90 1 94 1 99 1 104 1 108 1 113 1 118 1 123 1 128 1 137 1 142 1 146 1 151 1 156 1 165 1 170 1 175 1 179 1 184 1 189 1 193 1 199 1 203 1 208 1 213 1 227 1 222	59 60 60 60 59 59 59 59 57 55 54 53 51 49 47 45 44 42 41 38 38 39 37 37 36 34 33 30 28 27 26 27 25 25 24

# ROUND RUBER 402 CONTINUED

1	227	22
1	232	20
1	236	19
1	241	16
I	246	14
I	251	14
I	255	12
I	260	12
1	265	12
Ī	270	12
I	274	12
1	279	11
Ĭ	284	11
1	289	10
1	293	10
ī	298	9
ï	303	8
Ī	307	8
ī	312	8
1	317	7
î	322	5
	3 C C	

ROUND NUMBER -- 399

PROJECTILE MASS (GM) -- 9-072 PROJECTILE VELOCITY (MPS) -- 460 -86

PROJECTILE TYPE -- SPEER, JHP, 30CAL

PROJECTILE DIAMETER (CH) -- 9.068

PROJECTILE D			I CAVITY MEASURI	E ME.MT C
PENETRATION DISTANCE (NA	PRESENTED	CROSS-SECT	I I PENETRATION I DISTANCE (NH)	CAVITY
-7	71	72	1 6	38
25	242		T 4 .	40
62	115		1 9	43
99	97		1 13	46
132 172	142		I 18	51) 56
	123 127		I 23 I 27	58
190	141		1 27 1 32	60
			1 32 1 37	62
			1 41	63
			I 46	64
			i 51	64
			1 55	65
			) 60	65
300	· · · · · · · · · · · · · · · · · · ·		I 65	65
	1 /1		1 70	65
			I 74	65
_	{ }		1 79	64
王 250 —	/ (	4	1 83	62
± 250 −			1 88	62
ш	\ \ \	\	I 93	61
$\frown$	}	1	I 97	60
500 —	(	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	I 102	58
Z O	}	/ 1	1 107	56
16			1 125	46
			1 130	43
	}	) 7	1 135 I 139	40 37
ENETRAT			1 839 1 144	37 37
⊢		\	1 149	37
₩ 100 <b>-</b>		\	1 153	36
	1	1 1	i 158	34
	(	1 1	i 163	32
<del>***</del>			1 167	32
50 <u> </u> -			1 172	31
İ	(		1 177	29
			181	29
			1 186	30
0		-	1 19E	30
-100	-50 O	50 100	1 195	29
	AVITY PRO	ETLE	I 200	28
Ĺ	HATTI EKO		1 205	27
			1 209	26
			I 214	26
		4.47	1 519	24
	4		1 224	23
			I 228	22
			I 233	19

#### ROUND NUMBER - 399 CONTINUES

1	237	17
1	242	16
1	246	14
1	251	12
j	256	12
1	261	13
1	266	12
3.	270	12
1	275	11
1	279	10
I	284	9
I	289	9
I	293	. 8
I	298	8
1	303	8
3	307	8
Ĭ	312	6
ī	315	5

PROJECTILE TYPE -- SPEER, JHP, 38CAL PROJECTILE VELOCITY (MPS) -- 223.11

PROJECTILE DE	FORMATION		I CAVITY MEAS	JREMENT S
PENETRATION DISTANCE (MM) -10 7 31 59 86 125 145	PRESENTED AREA (MM**2) 37 55 59 52 52 52 55 46	CRDSS-SECT AREA (MM+#2) 37 55 64 57 57	I PENETRATION I DISTANCE (M) I 0 I 4 I 9 I 14 I 19 I 24 I 29	16 16 17 17 18 18
300			1 33 1 38 1 43 1 48 1 53 1 57 1 62 1 67 1 72	19 19 19 20 20 20 20 20
050 PTH 520			1 77 1 82 1 87 1 91 1 96 1 100	19 18 18 17 16 15
RATION 1200		-	1 106 1 111 1 115 1 120 1 125 1 130	15 15 15 15 15 15
9 N 100			1 135 1 140 I 144 I 149 I 154	16 16 16 16 16
50			I 158 I 164 I 168 I 173 I 178	16 15 14 13
-100 CF	-50 0 RVITY PRØF	ILE	I 183 I 187 I 192 I 197 I 202	13 13 12 13 13
		477	I 207 I 212 I 216 I 221 I 226	13 14 14 14

## ROURD NUMBER 404 CONTINUED

I	231	15
I	236	14
1	240	15
I	246	15
1	250	15
1	255	16
I	260	16
1	265	16
Ĭ	270	15
I	274	15
1	279	15
I	284	15
I	289	14
1	293	14
1	298	13
1	303	13
1	308	13
ì	313	12
1	318	10
1	322	10
1	327	8

ROUND NUMBER -- 408 PROJECTILE MASS (GH) -- 9-461

PROJECTILE TYPE --- SPEER.JHP.38CAL PROJECTILE VELOCITY (MPS) -- 327.66

PROJECTILE DE	FORMATION		CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) -7 16 46	AREA (MM++2) AREA	5 I	PENETRATION DISTANCE LMM1 0 4	CAVITY RADIUS (MM) 23 24 26
76 105 142 159	116 13 109 10 115 11 106 10	6 I 9 I 6 I 9 I	14 19 23 28 33	30 33 35 38 41
300		1 1 1 1	47 52 57 61	42 44 45 44 44
H 250		I I I	70 76 80 85	44 44 43 42 41
ND N		1 1 1	<del></del> -	40 38 38 36 35 37
PENETRA 100		- I	118 123 128 133	36 35 36 34 32
50		- I	147 152 156 161	31 30 29 27 25
-100 CF	-50 0 50 RVITY PROFILE	100 I	171 175 180 185	24 23 22 21 20
	479	1 1 1 1 1 1 1	194 199 204 209 213 218	18 19 17 16 14 14 12

### ROUND NUMBER 408 CONTINUED

I	227	10
E	232	10
Ĭ	237	10
1	242	10
1	247	9
I	251	9
I	256	9
1	261	9
I	265	9
1	2 70	7
1	275	7
1	280	8
I	285	7
1	289	6
ì	294	6
I	299	6
I	303	6
1	308	6
1	313	6
1	318	6
1	322	4
-		-

PROJECTILE TYPE -- SPEER, JHP, 38CAL PROJECTILE VELOCITY (MPS) -- 350.22

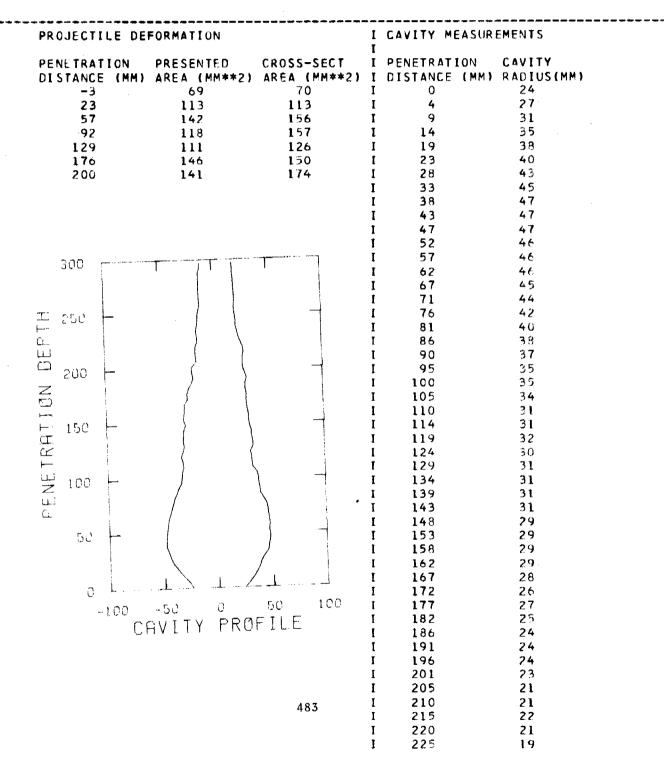
PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
PENSTRATION DISTANCE (MM) -5 19 52 82 112 150 168	PRESENTED AREA (MM**2) 69 118 135 118 119 125 143	CROSS-SECT AREA (MM**2) 71	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 19 I 23 I 28 I 33 I 37 I 42	29 31 34 37 39 42 44 46	
	-50 C RVITY FROM	50 100 FILE	42	48 50 50 50 50 50 50 50 50 50 49 48 47 45 44 43 41 40 27 36 33 32 31 30 27 26 26 25 24 23 22 22 21 20	

## ROUND NUMBER 437 CONTINUED

I	226	16
t	230	16
1	235	15
I	240	14
Ī	245	13
I	249	13
I	254	12
Ī	259	12
I	264	11
I	268	10
I	273	10
I	278	9
I	283	1.9
Ī	287	10
I	292	9
I	297	9
Ī	301	8
I	306	7
I	310	7
I	315	6
T		

PROJECTILE TYPE -- SPEER, JHP, 38CAL

PROJECTILE VELOCITY (MPS) --363.63



### ROUND NUMBER 436 CONTINUED

I	229	19
I	234	18
I	239	17
I	244	17
Ī	249	17
1	253	16
Ī	258	15
I	263	16
I	268	16
I	272	16
I	277	16
Ī	<b>2</b> 8 <i>2</i>	15
I	287	15
I	292	1.5
1	296	14
I	301	14
I	306	13
I	311	12
I	316	12
T		

ROUND MUMBER -- 403

PROJECTILE MASS (GM) -- 9.461

PROJECTILE TYPE --- SPEER, JHP, 3 BCAL PROJECTILE VELOCITY (MPS) --- 394-72

PROJECTILE DEFORMATION			I CAVITY HEASUREMENTS	
PENETRATION DISTANCE (RM) -3 26 63 103 142 193 220	PRESENTED AREA &MM++2) 90 146 147 72 58 136	Cunna area	I PENETRATION I DISTANCE (NH) I 0 I 5 I 9 I 14 I 19 I 24 I 28	CAVITY RADIUS (MM) 36 39 42 44 46 49
300			1 33 1 38 1 43 1 47 1 52 1 57 1 62 1 67	52 51 51 51 49 48 47 45
ON DEPTH 500			1 7k 1 76 1 81 1 86 1 91 1 95 1 100 1 105	43 42 42 41 40 39 38 37
PENETRATIO			I I14 I 119 I 124 I 129 I 134 I 138 I 143	38 35 37 37 37 35 33 32
50 -100	-50 0	50 100	I 148 I 153 I 257 I 162 I 167 I 172 I 177 I 18I	33 31 33 32 31 31
C	AVITY PRØ	485	1 186 1 191 1 196 1 200 1 205 1 210 1 215 1 220 1 225	29 29 30 29 28 27 26 23 22

## ROUND NUMBER 403 CONTINUED

1	229	22
1	234	23
1	239	24
I	244	24
1	248	24
1	253	23
I	258	22
1	263	22
I	268	20
1	272	20
I	277	19
I	282	19
1	287	18
1	292	18
I	296	18
Ï	301	17
1	305	16
I	311	14
I	315	13
1		

PROJECTILE TYPE -- SPEER, JHP, 38CAL PROJECTILE VELOCITY (MPS) -- 402.03

PROJECTILE DEF	ORMATION		I CAVITY MEASUR	EMENTS
		CROSS-SECT AREA (MM*+2)	I I PENETRATION I DISTANCE (MM) I O	CAVITY RADIUS (MM) 28
27	149		i 4	31
65	156	- ' '	i 9	35
103	150		Î 14	38
142	166		1 19	41
192	168		23	43
217	135		I 28	45
-			I 33	47
		!	r 37	48
			I 42	48
			I 47	47
300		<del></del>	I 52	48
300	1 ( 1 )	1	I 56	47
	(		I 61	48
			I 66	46
I 250 ←		-	I 71	44
F- · .	)		I 75	43
		1	I 80	43
LLJ CD	/		I 84	41
200 -	1	. 1	1 89	40
N D	}		1 94	37
			I 99	39
<b>⊢</b> :	(		I 104	40
± 150 −	)		I 108	39 38
8	)	1	I 113 I 118	36
· <del>-</del>	}	<b>\</b>	I 118 I 122	35
₩ 100 <b>-</b>	(	\ <sub>1</sub>	I 127	36
Z 100 [	<i>)</i>	(	1 132	35
i i	1	1	1 136	33
σ.	/	\ 1	i i41	33
50 <del> </del>		1	I 146	32
90		1	I 151	32
•			1 156	<b>3</b> 3
	\ \.	/	I 160	32
			I 165	30
- 1 00	-50 0	50 100	I 169	29
			I 174	28
ŲΗ	VITY PROF		I 179	28
	•		I 184	29
			I 189	28
			I 193	26
			I 198	27
			I 203	25
			I 207	25
			1 212	24
			1 217	23
			I 222	22

### ROUND NUMBER 435 CONTINUED

I	226	22
I	231	22
1	236	20
I	240	20
Ī	245	20
Ī	250	20
I	<b>25</b> 5	19
I	259	19
I	264	18
I	269	17
I	273	17
I	278	17
I	283	16
I	289	16
I	292	17
ľ	297	17
I	302	16
Ī	306	16
I	311	15
I	316	14
Ţ	321	14

PROJECTILE TYPE -- SPEER, JSP, 38CAL PROJECTILE VELOCITY (MPS) -- 224.03

			I CAVITY MEASURI	EMENTS
METRATIDI Stance ()	PRESEMTED	CROSS-SECT	I I PENETRATION I DISTANCE EMM}	CAVITY RADIUS (MM)
-14	43	43	1 0	15
4	56		J 4	15
28	54		1 9	15
55	54	54	1 14	15 17
82 1 <i>2</i> 2	56 56	56 56	1 19 1 23	18
142	54		I 28	19
P-45	24		1 33	20
	N.		1 37	21
			I 42	21
			1 47	21
			1 52 1 56	21
200			1 56 1 61	21. 21
300		i	1 66	20
		•	71	19
j			1 75	18
250	}	i	J 80	18
			1 85	18
	)		I 89 I 94	17
200		i	I 94 I 99	17 17
			i 104	16
) )			1 108	15
,			1 113	15
150			1 118	15
		ſ	1 122	14
.			1 127	14
100		f	I 132 I 137	14 14
. 100			I 337 I 141	13
7		t to the second	I 146	13
Ì	1	i	1 151	13
50		+	I 156	13
			1 160	12
			I 165	12
o L			1 170	12.
			1 174 I 179	12 12
- { U	0 -50 0		1 184	12
	CAVITY PRO		i 189	12
			I 193	12
			I 198	12
			I 203	12
			I 207	12
			ľ 212	12
			I 217 I 222	12 11

#### ROURD MURBER 395 CONTINUED

ĭ	226	11
F	231	11
1	236	13
1	241	11
I	245	11
ĵ	250	10
I	255	10
1	260	9
ĵ	264	9
Ĭ	269	9
1	274	9
I	278	9
1	283	8
Ī	288	8
1	293	7
1	297	7
1	302	6
Ī	307	5
Ī	311	4
Ť	<del></del>	•

PROJECTILE DEFORMATION				I CAVITY MEASUR	EMENTS	
PENFTRA DISTANCI -10 9 33 62 91 130 149		PRESENTED AREA (MM**2) 52 50 68 50 51 27 34	AREA (MM**2) 52 50 69 50 57	I 0 I 4 I 9 I 14 I 18 I 23 I 28 I 33 I 38	11 11 14 15 16 17 17 16	
300		T		I 42 I 47 I 52 I 57 I 61 I 66	15 15 15 16 15 16	
⊏ 250 ⊑ a.				I 71 I 75 I 80	15 15 17	
200 Z Z O			_	I 85 I 90 I 95 I 99	16 17 17 17	
N 100			_	I 104 I 109 I 114 I 118	18 16 16 16	
ليا			_	I 123 I 128 I 133 I 137	16 16 16 15	
с. 50	-		-	I 142 I 147 I 151 I 156	16 15 16 15	
O -1	ce ~	JOSO O VITY PROF	100 ILE 491	I 161 I 166 I 170 I 175 I 180 I 185 I 189 I 194 I 199 I 204 I 208 I 213 I 218 I 222	16 16 15 16 16 16 15 15 15 16 16	

### ROUND NUMBER 427 CONTINUED

I	227	15
1	232	14
Ţ	237	14
I	241	13
I	246	12
I	251	11
I	256	11
I	260	10
I	265	10
Ĭ	270	9
Ţ	275	9
I	279	8
I	284	븅
I	289	P
I	294	8
I	298	7
I	303	7
Ī	308	€
I	313	6
Ī	317	2
I		

ROUND NUMBER -- 429 PROJECTILE MASS (GM) -- 8.100

PROJECTILE TYPE -- SPEFR. JSP. 38CAL PROJECTILE VELOCITY (MPS) -- 309.07

PROJECTI	LE DE	FORMATION		I CAVITY MEASUR	EMENTS	
PENETRAT DISTANCE -6 19 48 82 116 160 182		PRESENTED AREA (MM**2) 49 56 64 56 51 58 52	CROSS-SECT AREA (MM**2) 49 57 64 57 53 58 54	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 19 I 23 I 28 I 33 I 37	CAVITY RADIUS (MM) 20 21 22 23 25 27 28 29	
300		<u> </u>		I 42 I 47 I 52 I 57	30 30 31 31	
II 250 Hi			-	I 61 I 66 I 71 I 76	31 31 30 29	
ON D			_	I 80 I 85 I 90 I 94	29 28 28 28	
H 150				I 99 I 104 I 109 I 114	28 27 26 26	
[편] N 103 Em Em				I 118 I 123 I 128 I 133	26 25 24 24	
a. 50			-	I 137 I 142 I 147 I 151	23 23 22 23	
O - 1	100	-50 0	50 100	I 156 I 161 I 166 I 170	20 21 20 19	
		VITY PROF		I 175 I 180 I 185 I 189	19 18 18 17	
				I 194 I 199 I 204	18 17 17	
			493	I 209 I 213 I 218 I 223	17 16 16 15	

## ROUND NUMBER 429 CONTINUED

Ī	227	15
Ī	<b>23</b> 2	14
I	237	l 4
Ĭ	242	13
I	246	13
I	251	12
1	256	12
Ţ	261	12
Ī	265	11
I	270	11
I	275	11
Ī	<b>28</b> 0	11
I	284	11
Ţ	289	10
I	294	11
1	299	10
I	303	10
I	<b>30</b> 8	9
I	313	8
I	317	8
I		

ROUND NUMBER -- 394 PROJECTILE MASS (GH) -- 8-100

PROJECTILE TYPE -- SPEER JSP 38CAL PROJECTILE VELOCITY (MPS) -- 325-22

PERETRATION DISTANCE (RM) PRESENTED CROSS—SECT IN PROPERTY RADIUS (RM) RADIUS
17
77
107 68 70 1 19 34 146 77 77 1 24 36 165 74 74 I 28 38 1 33 39 1 38 40 I 48 43 I 53 42 I 48 43 I 57 43 I 67 43 I 67 43 I 67 43 I 67 43 I 67 43 I 67 43 I 71 42 I 81 41 I 81 41 I 86 41 I 91 41 I 86 41 I 91 41 I 100 39 I 100 30 I 10
146 165 74 74 74 1 28 38 38 1 33 39 1 38 40 1 43 42 1 48 43 1 53 42 1 57 43 1 67 43 1 67 43 1 76 41 1 76 41 1 86 41 1 91 41 41 41 42 41 41 41 42 41 41 41 42 41 41 41 42 41 41 41 42 41 41 41 41 42 41 41 41 41 42 41 41 41 41 41 41 41 41 41 41 41 41 41
165 74 74 I 28 38 38
1 33 39 1 38 40 1 43 42 1 43 42 1 48 43 1 53 42 1 53 42 1 67 43 1 67 43 1 67 43 1 67 43 1 67 43 1 67 43 1 67 43 1 67 43 1 67 43 1 67 43 1 67 43 1 67 43 1 67 43 1 67 43 1 67 6 41 1 86 41 1 86 41 1 91 41 1 100 39 1 100 39 1 100 39 1 100 39 1 100 39 1 100 39 1 100 39 1 100 37 1 110 37
300  1
1
300  The state of the state of
T. 250  T. 250
TL 250    1 62 43   1 67 43   1 71 42   1 76 41   1 76 41   1 86 41   1 86 41   1 86 41   1 95 40   1 95 40   1 100 39   1 105 38   1 110 37   1 115 34   1 120 33   1 124 32   1 124 32   1 129 32   1 134 30   1 139 28   1 143 28   1 143 28   1 143 28   1 148 27   1 153 25   1 158 23   1 168 21   1 168 21   1 172 22
The content of the co
TL 050
1 76 41 1 81 41 1 86 41 1 91 41 20 39 1 100 39 1 105 38 1 110 37 1 115 34 1 120 33 1 124 32 1 129 32 1 134 30 1 139 28 1 143 28 1 143 28 1 143 28 1 143 28 1 148 27 1 153 25 1 158 23 1 168 21 1 172 22
1
1 86 41   91 41   1 95 40   1 100 39   1 100 37   1 115 34   1 120 33   1 124 32   1 129 32   1 134 30   1 139 28   1 143 28   1 143 28   1 153 25   1 158 23   1 168 21   1 168 21   172 22
91   41   95   40   100   39   100   39   100   37   110   37   110   37   110   37   110   37   110   37   110   32   110   32   110   32   110   32   110   32   110   32   110   30   110   30   110   30   110   30   110   30   3
1 95 40   39
100   39   1 105   38   1 110   37   115   34   34   32   1 120   33   1 124   32   32   1 134   30   30   30   30   30   30   30
1 110 37 1 115 34 1 120 33 1 124 32 1 129 32 1 134 30 1 139 28 1 143 28 1 148 27 1 153 25 1 158 23 1 168 21 1 172 22
1 110 37 1 115 34 1 120 33 1 124 32 1 129 32 1 134 30 1 139 28 1 143 28 1 148 27 1 153 25 1 158 23 1 168 21 1 172 22
1 115 34 32 120 33 1 124 32 1 129 32 1 134 30 1 139 28 1 143 28 1 148 27 1 153 25 1 158 23 1 162 23 1 168 21 172 22
1 120 33 32 1 124 32 1 129 32 1 134 30 1 139 28 1 143 28 1 148 27 1 153 25 1 158 23 1 168 21 172 22
1 124 32 32 1 129 32 1 134 30 1 139 28 1 143 28 1 148 27 1 153 25 1 158 23 1 168 21 172 22
1 134 30 28 1 143 28 1 148 27 1 153 25 1 158 23 1 162 23 1 168 21 1 172 22
1 139 28 1 143 28 1 148 27 1 153 25 1 158 23 1 168 21 1 172 22
1 143 28 1 148 27 1 153 25 1 158 23 1 162 23 1 168 21 1 172 22
1 148 27 1 153 25 1 158 23 1 162 23 1 168 21 1 172 22
I 153 25 I 158 23 I 162 23 I 168 21 I 172 22
I 158 23 I 162 23 I 168 21 I 172 22
1 162 23 1 168 21 1 172 22
1 168 21 1 172 22
1 172 22
* ***
CAVITY PROFILE 1 182 22
1 187 20
I 191 19
I 196 18
I 201 16
1 206 17
495 1 211 17
1 215 16
I 220 16 I 225 15

## ROUND NUMBER 394 CONTINUED

1	2 30	14
1	235	14
I	239	13
Ī	244	13
I	249	12
I	254	13
I	259	13
I	263	13
1	268	13
I	273	13
I	278	12
I	2.82	11
1	288	11
1	292	10
1	297	10
I	302	10
1	307	9
1	311	7
ľ	316	7
I	32 <b>1</b>	6
ī	326	1

ROUND NUMBER -- 428 PROJECTILE MASS (GM) -- 8.100

PROJECTILE TYPE -- SPEER, JSP, 38CAL PROJECTILE VELOCITY (MPS) -- 398.68

PENLTRATION DISTANCE (MM) AREA (MM**2) TAREA (MM**2) TO DISTANCE (MM) REAL (MM**2) TO DISTANCE (MM) RADIUS (MM) REAL (MM**2) TO DISTANCE (MM) RADIUS (	 PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
27 96 100 I 5 32 61 112 112 I 9 35 97 160 162 I 14 37 130 162 165 I 18 39 171 86 86 I 23 41 191 80 82 I 28 43 1 37 46 I 47 48 I 52 46 I 47 48 I 56 49 I 61 48 I 70 48 I 70 48 I 89 43 I 89 43 I 89 43 I 89 43 I 89 43 I 89 43 I 100 45 I 100 45 I 100 46 I 100 45 I 100 46 I 100 30 I 117 38 I 123 36 I 127 36 I 136 34 I 127 36 I 136 34 I 127 36 I 136 34 I 127 36 I 136 34 I 127 36 I 136 30 I 127 36 I 136 30 I 127 36 I 136 30 I 127 36 I 136 30 I 127 36 I 136 30 I 127 36 I 137 36 I 138 23 I 144 26 I 188 24 I 198 23 I 200 21 I 198 23 I 200 21 I 198 23 I 200 21 I 198 23 I 200 21 I 217 17			CROSS-SECT	I PENETRATION	RADIUS (MM)	
112 112 1 9 35 97 160 162 1 14 37 130 162 165 1 18 39 171 86 86 1 23 41 191 80 82 1 28 43 1 33 45 1 47 48 1 42 47 1 47 48 1 52 46 1 56 49 1 56 49 1 66 48 1 75 47 1 66 48 1 75 47 1 89 42 200 - 1 89 42 200 - 1 100 1 175 201 1 100 30 1 121 31 1 150 30 1 141 34 2 1 165 30 1 170 30 2 1 188 24 1 198 23 1 208 21 1 198 23 1 208 21 1 198 23 1 208 21 1 208 21 1 208 21 1 208 21 1 208 21 1 208 21 1 208 21	<del>-</del> 3 .	69	69			
97 160 162 1 14 37 130 162 165 1 18 39 171 86 86 1 23 41 191 80 82 1 28 43 1 33 45 1 37 46 1 42 47 1 47 48 1 56 49 1 66 48 1 70 48 1 70 48 1 70 48 1 89 43 1 89 43 1 100 45 1 100 47 1 117 38 6 1 123 36 1 127 36 1 136 34 1 141 34 1 156 30 1 127 36 1 136 34 1 141 34 1 141 34 1 141 34 1 151 31 1 155 31 1 160 30 1 160 30 1 160 30 1 160 30 1 161 32 1 170 30 1 170 30 1 170 30 1 170 30 1 188 24 1 199 22 1 199 24	27	96	100			
130 162 165 1 18 39 171 86 86 86 1 23 41 191 80 82 1 28 43 1 337 46 1 42 47 48 1 52 48 1 552 48 1 56 49 1 61 48 1 66 48 1 70 48 1 66 48 1 70 48 1 85 44 1 89 43 1 100 1 108 41 1 108 41 1 108 41 1 113 40 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						
171 86 86 I 23 41 191 80 82 I 28 43 I 33 45 I 42 47 I 47 48 I 52 46 I 56 49 I 66 48 I 70 48 I 75 47 I 80 45 I 89 43 I 89 43 I 89 43 I 100 47 I 100 47 I 113 40 I 123 36 I 123 36 I 123 36 I 124 37 I 100 47 I 113 40 I 123 36 I 123 36 I 124 32 I 100 47 I 110 38 I 110 39 I 110 30 I 116 30 I 117 38 I 146 32 I 155 31 I 160 30 I 160						
191 80 82 1 28 43 1 33 45 1 37 46 1 42 47 1 47 48 1 52 46 1 66 48 1 70 48 1 70 48 1 85 44 1 85 44 1 88 43 1 100 45 1 100 45 1 100 30 1 117 38 1 127 36 1 136 34 1 141 34 1 146 32 1 155 31 1 165 30 1 170 30 1 170 30 1 170 30 1 170 30 1 170 30 1 171 38 1 123 36 1 127 36 1 136 34 1 141 34 1 146 32 1 155 31 1 166 32 1 170 30 1 170						
THE SECON SECOND						
T 37 46  I 42 47  I 47 48  I 556 49  I 61 48  I 70 48  I 70 48  I 80 45  I 85 44  I 85 44  I 88 43  I 100 45  I 100 42  I 100 42  I 100 42  I 100 42  I 100 42  I 100 42  I 100 43  I 100 42  I 100 43  I 100 42  I 100 43  I 100 44  I 100	191	80				
1						
1						
1   52   48   49   49   49   49   49   49   49						
1						
I						
I 66 48	300	· T				
T   70   48   47   45   47   45   47   48   45   45   47   47   48   49   49   49   49   49   49   49						
THE 250 - I 75 47  I 80 45  II 85 44  II 89 43  I 94 42  I 108 41  I 117 38  I 123 36  I 127 36  I 136 34  I 141 34  I 141 34  I 141 34  I 141 34  I 141 34  I 141 34  I 155 31  I 156 31  I 156 30  I 170 30  -100 -50 0 50 100 I 175  CHVITY PROFILE  I 188 24  I 193 22  I 198 23  I 198 23  I 202 21  I 198 23  I 202 21  I 198 23  I 202 21  I 198 23  I 202 21  I 198 23  I 202 21  I 198 23  I 202 21  I 208 21  I 217 17						
I 80 45 I 89 43 I 94 42 I 99 43 I 108 41 I 117 38 I 123 36 I 127 36 I 136 34 I 141 34 I 146 32 I 141 34 I 146 32 I 155 31 I 155 31 I 155 31 I 155 31 I 155 31 I 155 30 I 170 30 I 170 30 I 170 30 I 170 30 I 170 30 I 188 24 I 193 22 I 188 24 I 193 22 I 188 24 I 193 22 I 198 23 I 202 21 I 208 21 I 217 17	T 9500	/				
1 85 44	- 520 L	/	ľ			
1   89   43   43   42   42   42   42   43   44   42   42	4_		!			
1 94 42   1 99 43   1 104 42   1 108 41   1 108 41   1 117 38   1 127 36   1 127 36   1 127 36   1 127 36   1 136 34   1 141 34   1 146 32   1 155 31   1 160 30   1 165 30   1 175 31   1 160 30   1 165 30   1 179 26   1 179 26   1 188 24   1 193 22   1 198 23   1 202 21   1 198 23   1 202 21   1 198 23   1 202 21   1 208 21   1 198 23   1 202 21   1 208 21   1 198 23   1 202 21   1 208 21   1 198 23   1 202 21   1 208 21   1 175   1 175   1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	LLI .	)				
T 99 43 1 104 42 1 108 41 1 117 38 1 123 36 1 127 36 1 132 36 1 132 36 1 136 34 1 141 34 1 146 32 1 155 31 1 160 30 1 155 31 1 165 30 1 170 30 1 175 29 CAVITY PROFILE 1 184 26 1 188 24 1 193 22 1 198 23 1 202 21 1 198 23 1 202 21 1 208 21 1 208 21 1 208 21 1 208 21 1 208 21 1 208 21 1 208 21 1 208 21 1 208 21 1 208 21 1 208 21 1 208 21 1 208 21 1 208 21 1 208 21	□ 200 <b>⊢</b>		1			
1 108 41 1 113 40 1 117 38 1 123 36 1 127 36 1 132 36 1 136 34 1 141 34 1 146 32 1 151 31 1 160 30 1 165 30 1 170 30 1 165 30 1 170 30 1 188 24 1 193 22 1 198 23 1 202 21 1 208 21 1 208 21 1 208 21 1 208 21 1 217 17						
1 108 41 1 113 40 1 117 38 1 123 36 1 127 36 1 132 36 1 136 34 1 141 34 1 146 32 1 151 31 1 160 30 1 165 30 1 170 30 1 165 30 1 170 30 1 188 24 1 193 22 1 198 23 1 202 21 1 208 21 1 208 21 1 208 21 1 208 21 1 217 17	<u>ξ</u>	/ \		I 104	42	
150		1		I 108		
1 141 34 1 146 32 1 151 31 1 155 31 1 160 30 1 165 30 1 170 30 1 175 29 1 179 26 CAVITY PROFILE 1 184 26 1 188 24 1 193 22 1 198 23 1 202 21 1 208 21 1 208 21 1 208 21 1 217 17	F 150 F	1	→	1 113	40	
1 141 34 1 146 32 1 151 31 1 155 31 1 160 30 1 165 30 1 170 30 1 175 29 1 179 26 CAVITY PROFILE 1 184 26 1 188 24 1 193 22 1 198 23 1 202 21 1 208 21 1 208 21 1 208 21 1 217 17	CT	{				
1 141 34 1 146 32 1 151 31 1 155 31 1 160 30 1 165 30 1 170 30 1 175 29 1 179 26 CAVITY PROFILE 1 184 26 1 188 24 1 193 22 1 198 23 1 202 21 1 208 21 1 208 21 1 208 21 1 217 17		)				
1 141 34 1 146 32 1 151 31 1 155 31 1 160 30 1 165 30 1 170 30 1 175 29 1 179 26 CAVITY PROFILE 1 184 26 1 188 24 1 193 22 1 198 23 1 202 21 1 208 21 1 208 21 1 208 21 1 217 17						
1 141 34 1 146 32 1 151 31 1 155 31 1 160 30 1 165 30 1 170 30 1 175 29 1 179 26 CAVITY PROFILE 1 184 26 1 188 24 1 193 22 1 198 23 1 202 21 1 208 21 1 208 21 1 208 21 1 217 17	岁 100 上	{	(			
1 141 34 1 146 32 1 151 31 1 155 31 1 160 30 1 165 30 1 170 30 1 175 29 1 179 26 CAVITY PROFILE 1 184 26 1 188 24 1 193 22 1 198 23 1 202 21 1 208 21 1 208 21 1 208 21 1 217 17		)	1 !			
1 151 31 155 31 160 30 165 30 170 30 170 30 170 30 170 30 175 29 170 179 26 188 24 193 22 198 23 1 202 21 1 208 21 497 1 212 20 1 171			1			
I 155 31 I 160 30 I 165 30 I 170 30 I 175 29 I 179 26 CAVITY PROFILE I 184 26 I 188 24 I 193 22 I 198 23 I 202 21 I 208 21 497 I 212 20 I 217		}	,			
I 160 30 I 165 30 I 170 30 I 170 30 I 175 29 CAVITY PROFILE I 184 26 I 188 24 I 193 22 I 198 23 I 202 21 I 208 21 497 I 212 20 I 217	50		}			
I 165 30 I 170 30 I 175 29 I 179 26 CAVITY PROFILE I 188 24 I 193 22 I 198 23 I 202 21 I 208 21 497 I 212 20 I 217	1	\	1			
I 170 30  -100 -50 0 50 100 I 175 29  CAVITY PROFILE I 184 26  I 188 24  I 193 22  I 198 23  I 202 21  I 208 21  497 I 212 20  I 217 17		\	1			
-100 -50 0 50 100 I 175 29 CAVITY PROFILE I 184 26 I 188 24 I 193 22 I 198 23 I 202 21 I 208 21 497 I 212 20 I 217	L		l 1			
TOTAL TOTAL STATE OF THE TOTAL S		· ·				
HVIIY PROFILE I 184 26 I 188 24 I 193 22 I 198 23 I 202 21 I 208 21 497 I 212 20 I 217 17			100			
I 188 24 I 193 22 I 198 23 I 202 21 I 208 21 497 I 212 20 I 217 17	CA	IVITY PROF	ILE			
I 193 22 I 198 23 I 202 21 I 208 21 497 I 212 20 I 217 17	·					
I 198 23 I 202 21 I 208 21 497 I 212 20 I 217 17					22	
I 202 21 I 208 21 497 I 212 20 I 217 17						
I 208 21 497 I 212 20 I 217 17						
497 I 212 20 I 217 17						
I 217 17			497			
I 222 17				I 217	17	
				1 222	17	

## ROUND NUMBER 428 CONTINUED

Ī	226	1.5
I	231	16
ſ	236	1.5
I	241	14
Ī	245	13
Ī	250	13
I	255	12
I	260	12
I	264	12
l	<b>2</b> 69	11
I	274	11
j	279	10
Ī	283	10
I	288	10
I	293	10
Ī	297	9
I	302	9
I	307	8
I	312	7
Ţ	316	6
I		

PROJECTILE TYPE -- SPEER, JSP, 38CAL PROJECTILE VELOCITY (MPS) -- 429.46

PROJECTILE DE	FORMATION	I CAVITY HEASURE	TENTS	
PENETRATION DISTANCE (RN) -4 27 63 100 134 177 197	PRESENTED AREA MMM**2 93 136 158 132 137 108 148	3 AREA (MM++2) 93 137 160 134 137 108 152		(AVITY (ADIUS (MM) 31 33 37 41 45 48 267 274 281 53
300		T	I 52 I 57	5 <b>3</b> 53
			1 62 1 66	53 53
± 250	) \		I 71 I 76	52 52
DE 250 -	/	\ \ \	I 81 I 85	51 50
200	}		I 90 I 95	49 48
N S	/		1 100	47
<del></del>	<b>\</b>	1	I 105 I 109	<b>4</b> 6 44
⊢ 150 ⊢		1	I 134 I 139	43 44
<u>~</u>	}	<b>)</b>	1 124	43
¥ 100 -			I 128 I 133	42 42
<u>а</u> .	/		I 138 I 143	42 41
50		1 1	I 148 I 152	41 40
		)	1 157	39
_			I 162 I 167	38 38
-100 -100	-50 G		I 171 I 176	37 36
	AVITY PRO	7F	1 181 1 186	35 33
			1 191	31
			I 195 I 200	30 29
			I 205 I 210	28 26
		499	1 214	25
			I 219 I 224	25 23

### ROUND NUMBER 393 CONTINUED

1	225	22
I	233	21
I	238	20
I	243	16
1	248	16
I	252	15
1	257	15
1	565	14
Ī	267	14
1	272	14
1	276	14
1	281	15
Ī	286	14
I	291	13
İ	295	13
1	300	12
1	305	11
1	310	10
Ī	314	9
1	319	8
1	-	

PROJECTILE TYPE --SPEER, JSP, 357 PROJECTILE VELOCITY (MPS) --240.18

PROJECTI	LE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRAT DISTANCE +9 11 36 63 94 137 158		PRESENTED AREA (MM**2) 52 46 57 58 57 51 50	CROSS-SECT AREA (MM**2) 52 47 57 58 57 54 61	24 1 30 1 36 1 41	CAVITY RADIUS (MM) 10 13 15 15 16 17 16 16
300				I 66 I 72 I 78	16 15 14 14 14
II 250 H- Q. U.J				I 90 I 96 I 102	14 13 13
200 200 200				1 114 1 120 1 126	13 14 13 12
—			- - 1	1 138 1 144	12 12 13 12
H 150 H H H H H H H H H H H H H H H H H H H				162 168	12 12 13 12
50			- 1	I 179 I 185 I 192	12 13 13 13
J -	100 Cf	AVITY PRO	50 100	204 209 215 222 227	12 12 13 13
			] ] ]	234 240 246 252	12 12 12 13
			501 I	263 270 275	13 12 12 12

## ROUND NUMBER 509 CONTINUED

I	287	12
I	<b>29</b> 3	12
I	299	11
I	305	11
I	311	10
I	318	9

ROUND NUMBER -- 508

PROJECTILE MASS (GM) --10.238

PROJECTILE TYPE -- SPEER, JSP, 357 PROJECTILE VELOCITY (MPS) -- 289.86

	CAVITY MEASUREMENTS
DISTANCE (MM) AREA (MM**2) AREA (MM**2) I   +9	PENETRATION CAVITY DISTANCE (MM) RADIUS(MM)  0 18 6 18 12 19 18 19 24 21 30 22 36 23 42 22 48 22 48 22 54 21 60 21
300	67

## ROUND NUMBER 508 CONTINUED

Ī	<b>29</b> 0	14
l	297	13
I	302	13
I	309	12
I	314	12
I	320	11

PROJECTILE TYPE --- SPEER + JSP + 38CAL PROJECTILE VELOCITY (MPS) --- 307 +85

PROJECTILE DEFORMATION		I CAVITY HEASUREMENTS		
PENETRATION DISTANCE (MM -7 17 47 77 107 149 168	PRESENTED  AREA (MM**2)  64  66  69  67  60  47	AREA (MM+#2) 64 66 66	PENETRATION CAVITY I DISTANCE (HM) RADIUS(HM) I 0 21 I 4 22 I 9 24 I 14 27 I 19 30 I 23 31 I 28 34 I 33 35 I 38 35 I 42 37	
300			1     47     38       1     52     39       1     57     39       1     61     38	
± 250			I     66     37       I     71     37       I     76     37       I     81     37	
000 DE			1     85     36       1     90     36       1     95     35       1     100     34	
1 150 - 150		ļ	I     105     33       I     110     33       I     114     32       I     119     31	
PENET 180		_	I 124 31 I 129 30 I 133 29 I 138 28	
50			I     143     29       I     147     28       I     152     28       I     157     27       I     162     26	
	-50 0 5 IVITY PRØFI	50 100	1 167 25 1 172 25 1 176 24 1 181 23	
			I 166 21 I 191 20 I 195 19 I 200 18	
		505	I 205 18 I 210 18 I 214 17 I 219 17 I 224 17	

# ROUND NUMBER 417 CONTINUED

1	2.29	16
I	234	15
1	238	15
I	243	14
1	248	14
1	253	14
I	257	14
I	262	14
1	267	14
1	272	13
1	276	13
1	281	12
1	286	12
1	291	12
1	295	11
1	300	10
1	305	10
1	310	9
1	315	9
Į	319	8
Ţ	324	7

ROUND NUMBER -- 473

PROJECTILE MASS (GR) --10.238

PROJECTILE TYPE -- SPEER, JSP, 38CAL PROJECTILE VELOCITY (MPS) -- 312-42

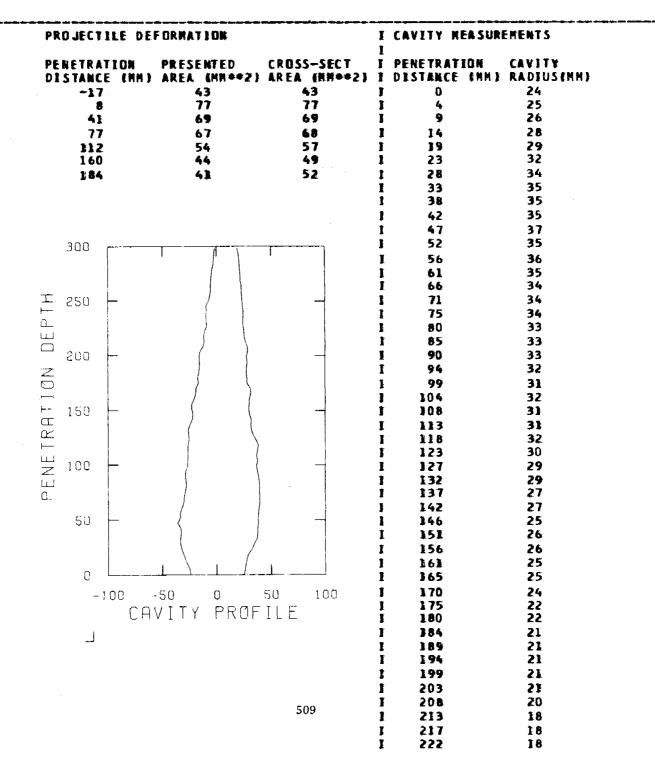
PROJECTILE DEFORMATION			I CAVITY HEASUREMENTS	
PENETRATION DISTANCE (N) -6 19 50 82 115 160 181	PRESENTED 1) AREA (MM ++2) 53 65 79 65 60 69	AREA (RH**2) 53 66 79 65 60	1 PENETRATION 1 DISTANCE (MM) 1	CAVITY RADIUS (NH) 23 25 27 28 30 31 33 34
300 <u> </u>			1 54 I 60 I 67 I 73 I 79 I 85 I 91 I 97	35 35 34 32 31 29 29
000 DEP			1 103 1 109 1 116 1 122 1 127 1 134 1 140	27 27 28 27 26 25 24
H 100 -			I 146 I 152 I 158 I 164 I 170 I 177 I 182 I 189	24 22 21 22 21 19 18
-100	-50 O AVITY PROF	50 100	I 189 I 195 I 201 I 207 I 213 I 219 I 225 I 231	18 18 17 16 14 14 14
		507	I 238 I 244 I 250 I 256 I 262 I 268 I 274 I 280 I 286	14 14 13 13 13 13 13 13

### ROUND NUMBER 473 CONTINUED

I	292	10
1	298	10
1	304	9
1	310	9
Ī	316	8
I	322	6

PROJECTILE TYPE -- SPEER. JSP. 38CAL

PROJECTILE VELOCITY (MPS) -335.58



### ROUND NUMBER 472 CONTINUED

Ĭ	227	16
1	232	16
i	236	16
I	241	16
I	246	16
Ī	250	15
I	255	14
1	260	13
1	265	14
1	269	13
I	274	13
ī	279	12
1	284	11
1	288	11
I	293	11
I	298	10
1	303	9
1	307	9
I	312	9
1	316	8
I		

ROUND NUMBER -- 436 PROJECTILE MASS (GH) -- 10.238

PROJECTILE TYPE -- SPEER, JSP, 38CAL PROJECTILE VELOCITY (MPS) -- 405-38

ROJECTILE DE	FORMATION		CAVITY HEASUR	ENENTS
PENETRATION			)   PENETRATION   DISTANCE (MM)	CAVITY
ISTANCE (MM) -5			DISTANCE (MM)	RADIUS(MM)
25	119 12		5	33
59	108 11	2	9	34
96		8	1 14	37
131	105 10		1 19	40
176		6	24	42
197	79 8	10	28	45
		1	F 33	47
		1	i 37	49
		1	42	50
		1	47	50
300		1	I 51	49
.001.	, ,		56	49
		1	61	49
	)		66	49
E 250	/		70	49
	(	7	75	49
<u> </u>	(		80	48
	)		85	48
200 -	/.		89	47
	}		94	47
	/	1	1 9B	45
<b>→</b>	/		103	43
<u>-</u> 150 –	)		108	44
5			113	44
			1 117 1 122	43
150 -	(		127	42 43
100	/		131	38
_			136	38
<u>L</u> ,	1		141	38
	}		146	37
50 -			150	36
			155	35
}			160	35
o L			165	35
		-w, w., a. a. a.	169	33
-100	-50 0 50	100	174	33
Lt	AVITY PROFILE		178	31
<b>O</b> 1	14 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	183	30
		i	188	31
		i	192	28
			197	28
		i	202	26
	511		207	25
	24.	•	211	24
		1	216	23
		1		22

# ROUND NUMBER 416 CONTINUED

I	226	22
1	230	22
1	235	20
1	239	20
1	244	20
3	249	18
1	254	17
3	258	16
1	263	15
I	268	14
J	273	14
I	277	14
I	2.82	14
I	287	13
F	291	12
1	296	11
ľ	301	12
î	306	11
ī	310	11
Ī	315	9
ï	319	á
	<b>317</b>	6

PROJECTILE TYPE -- SPEER, JSP, 38CAL PROJECTILE VELOCITY (MPS) -- 416-36

		I CAVITY REASUR	EMENTS	
PERETRATION DISTANCE (MM) 0 29 64 98 B30 171 188	PRESENTED AREA (NH==2) 106 174 171 159 158 165 154	CROSS-SECT ) AREA (MM*2) 106 181 172 159 158 165 154	I PENETRATION I DISTANCE (NH) I O	CAVITY RADIUS(MH) 38 43 47 50 54 57 59 60 61
300			I 59 I 65 I 71 I' 77	61 61 60 59
王 250 c. iii			I 83 I 89 I 95 I 101	58 57 56 55
000 D			I 107 I 113 I 119 I 125	52 53 53 50
-			I 131 I 137 I 143 I 149	49 46 44 42
PENETRA 100			I 154 I 160 I 167 I 172	41 40 38 38
50			1 178 1 184 1 191 1 197	37 36 36 35
0 -100	-50 0	50 100	1 202 1 208 1 214 1 220	33 30 27 26
CI	AVITY PRO	)FILE	I 226 I 232 I 238 I 244	24 24 22 20
		513	1 250 1 256 1 262 1 268 1 274	17 18 16 16 15
			1 280	14

#### ROUMD MUMBER 448 CONTINUED

I	286	13
I	292	13
ľ	298	13
I	304	13
1	309	
Ī		

PROJECTILE TYPE -- SPEER, JSP, 38CAL

PROJECTILE VELOCITY (MPS) --512.98

PROJECTILE DIAMETER (CM) -- 9.068

			I CAVITY MERSUREMENTS	
	CE ENN) AREA MM##2) A	ROSS-SECT REA (MM+2)	I I PENETRATION I DISTANCE (MK)	
· (			1 0 1 4	39 <b>4</b> 2
69			, , 1 9	45
109			1 14	48
1.36	143		1 18	51
176		190	I 23	54
394	196		I 28	58
			I 33	61
			1 37	62
			1 42	63
			1 47	65
_			I 52	65
300			1 57	64
			1 62	65
	/		I 66	64
250		1	71	64
550	Γ / \	1	I 76 I 80	64
250		i '	1 85 I 85	63
}	\ \ \ \ \ \		1 95 1 90	63 62
200	<b>\</b>	,	I 95	62
		1	1 99	62
<u>,                                     </u>		,	1 104	61
,			1 109	61
150	<b>-</b> (		I 114	59
150	\	\	I 119	57
•	/	}	1 123	57
l			1 128	56
100	<del> </del>	\ <del>-\</del>	I 133	55
j	}		1 138	54
		1		51
<b>-</b> ~	1		147	51
50		) - 1	1 152	50
		/   1		47
				45
Ö			- ·	43
		1		41
-	100 -50 0 50		1 175	39
	CAVITY PROFIL	E		39
		-		38
		]		37 35
		1		35 33
		1		31 31
		•		30
		515		28
		j		29 29
			223	28

218

28

#### ROUMD MUNUER 415 CONTINUED

1	228	26
1	233	25
3	238	23
1	242	22
ł	247	21
I	47	2
I	257	17
. 1	263	16
1	266	15
I	271	14
I	276	13
I	280	12
3	285	11
1	290	10
j	295	9
I	300	9
1	304	9
I	309	8
)	314	7
I		

ROUND NUMBER -- 507 PROJECTILE MASS (GM) -- 10.238 PROJECTILE TYPE -- SPEER, JSP, 357 PROJECTILE VELOCITY (MPS) -- 536.75

PROJECTILE DEFORMATION I			I CAVITY MEASUREMENTS	
PENETRATION DISTANCE (MM) 1	PRESENTED AREA (MM**2) 71	AREA (MM**2)	I PENETRATION I DISTANCE (MM) I O	CAVITY RADIUS(MM) 39
41	190		Ī 6	45
82	211	212	I 12	51
118	214		I 18	56
151	219	220	I 24	62
191	249		I 30	66
206	246		I 36	69
		· ·	I 42	70
			I 48	72
			I 54	73
			I 60	73
300		I I	I <b>6</b> 6	74
	'	'	· <del>-</del>	<b>7</b> 3
			=	73
	)	1	• •	72
<u> 250 ⊢</u>		1		72
<del></del>			I÷ 96	72
7		1		71
⊥i ⊃ 200		I		70
				69
z	/	t		67
5	\	\ I		64
··	/	\		62
<u> </u>		\		59
150 H		\ I		5 <b>6</b>
		1		55
		\		<b>5</b> 3
岁 100 上		\		50
		i I	167	48
<u>a</u>   )		}	173	48
		/ _ I		46
50 <del> </del>		1		44.
		/ I		41
	_	1	_	40
	<i>Y</i> 1	∠1 I		3ε
0		I		36
-1.00	-50 - 0	50 100 <b>I</b>		33
	VITY PROF	ILF		31
UΠ	V L I I I I I I I I I I I I I I I I I I	•		28
		Ţ	233	28
		Ī	239	26
		Ĭ	245	22
		I	251	20
		I	257	18
		517 I	263	17
		I	269	17
		I	275	16

Q	OUND	NUMBER	507	CONTI	MHED
м	OUND.	NUMBER	7 U f	CUNI	NUCU

I	287	12
Ī	293	10
I	298	11
I	305	9
I	311	8
Ţ	'	

PROJECTILE TYPE -- SPEER, JSP, 38CAL PROJECTILE VELOCITY (MPS) -- 352.65

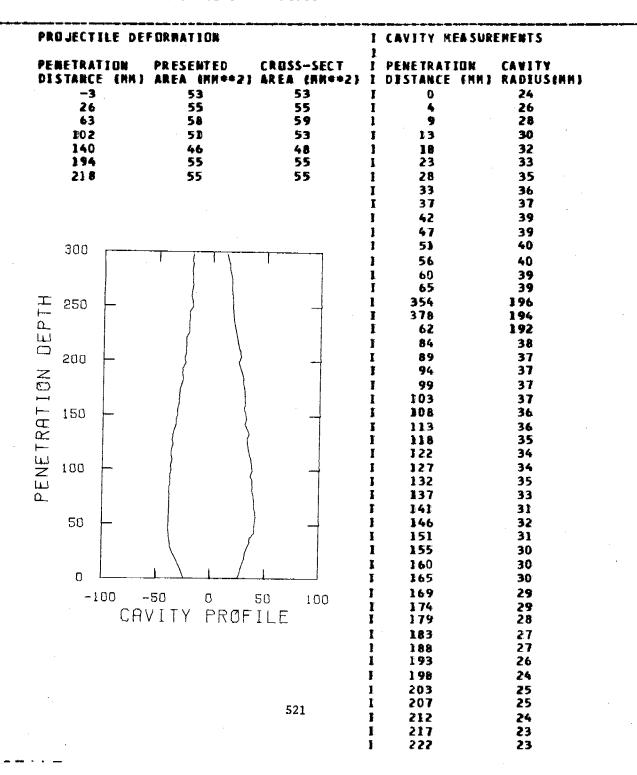
PROJECTILE DE	PROJECTILE DEFORMATION I			I CAVITY MEASUREMENTS	
PENETRATION DISTANCE (MM) -4 25 59 98 138 192 218	PRESENTED AREA (MM**2) 59 52 58 57 53 46 38	CROSS+SECT AREA (MM**2) 60 53 58 57 53 52 49	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 19 I 23 I 28 I 33 I 38 I 42	CAVITY RADIUS (MM) 23 24 26 26 29 30 31 33 33	
300			I 47 I 52 I 56 I 61	35 35 35 35 36	
# 250 -			I 66 I 71 I 75 I 80	36 36 35 33	
300 DEF			I 85 I 89 I 94 I 99	32 33 32 31	
H 150			I 104 I 109 I 113 I 118	32 31 31 30	
N 100 -			I 123 I 127 I 132 I 137	30 29 28 29	
50			I 142 I 146 I 151 I 156	29 29 28 27	
-100 CF	-50 O NVITY PRØF	50 100 TLE	I 160 I 165 I 170 I 175 I 179	26 27 26 25 25	
·		519	I 184 I 189 I 193 I 198 I 203 I 208 I 213 I 217 I 222	26 25 24 24 23 23 23 23	

# ROUND NUMBER 423 CONTINUED

I	227	22
Ī	231	20
1	236	20
I	241	19
Ī	245	19
I	250	19
Ī	<b>25</b> 5	18
I	260	1.8
I	264	19
Ī	269	18
1	274	18
I	2 <b>7</b> 9	18
I	283	18
Ī	288	18
ſ	293	17
I	297	15
I	302	. 15
I	307	15
I	312	14
T		

PROJECTILE TYPE -- SPEER, JSP, 38CAL

PROJECTILE VELOCITY (MPS1 -- 374-90



### ROUND MUNSER 419 CONTINUED

1	226	21
1	231	20
I	236	20
Ī	240	19
1	245	19
1	250	18
ī	255	18
j.	259	18
ī	264	18
i	269	17
ī	273	18
ï	278	17
i	283	17
Ī	288	16
Ĭ	292	16
Î	297	15
Ī	302	14
Ī	307	14
i	311	13
i	315	
Ī	313	13
1		

PROJECTILE TYPE -- SPEER, JSP, 38CAL

PROJECTILE VELOCITY (MPS) -405-69

PROJECTILE DEFORMATION			I CAVITY HEASUREMENTS		
PENETRATION DISTANCE (NA)	PRESENTED AREA (MM+#2) 51	CROSS-SECT AREA (MM++2)	I I PENETRATION I DISTANCE (MMI I O	CAVITY RADIUS(MM) 29	
32	61		1 4	32	
67	87		1 9	35	
FO1 134	77 65		I 14 I 19	3 <b>8</b> 41	
182	86		; 19 ; 23	44	
204	93		1 142	231	
			1 166	242	
			I 189	250	
			I 42	51	
		· · · · · · · · · · · · · · · · · · ·	I 47 I 52	52	
380	<del></del>		, 32 1 57	53 53	
		1	, ,, I 61	54	
	\		I 66	54	
T 555			1 70	54	
± 250 − 0.			1 75	54	
<u>م</u>			I 80	54	
<u> </u>	/		I 84 I 89	53 53	
200	\		94	52 52	
N O	}		I 99	49	
		\	1 103	50	
₩ 150 H			I IOB	49	
Œ		) 7	1 113	48	
$\simeq$	}		I 118	47	
<del> </del>	}		I 122 I 127	46 44	
N 100	}	\ -	1 132	43	
4			1 136	43	
۵		1	I 14B	42	
50 -			1 146	4 1	
		/ !		39	
			I 155 I 160	38 37	
		/ 1 '	1 164	36	
0	<u> </u>		169	34	
-100	-50 0	50 100 j	1.74	33	
CF	NVITY PRØF	ILE !	I	31	
		]	183	29	
			I 188 I 193	28 28	
		j		26	
		j		2.6	
•		•	207	26	
		523	212	26	
		]		24	
		1	221	23	

# ROUND NUMBER 420 CONTINUED

I	226	23
1	231	23
1	235	22
1	240	21
1 .	245	21
I	249	20
ĭ	254	19
I	259	18
Ī	264	17
ì	269	16
I	273	16
I	278	17
j	282	17
1	287	16
I	292	16
I	2 96	14
1	301	12
Ī	306	ĪĪ
I	311	10
1	315	9
T		

ROUND NUMBER -- 421

PROJECTILE MASS (GM) -- 10.368

PROJECTILE TYPE -- SPEER, JSP, 3 WCAL PROJECTILE VELOCITY (MPS) -- 424.59

PROJECTILE DE	FORMATION	I CAVITY MEASUREMENTS		
PERETRATION DISTANCE (MR)		AREA (MM=#2)	I PENETRATION DISTANCE (MK)	CAVITY RADIUS (HH)
-2 31	69 86		I 0 I 4	33 37
66	98	99	9	41
101	88	88	14	46
134	91	91	19	49
177	86	<del>-</del> •	23	51
199	86	92	28 33	53 54
			1 33 1 38	55 55
			556	298
		ĵ	I 250	302
		!	1 276	305
<b>_</b>		<del></del>	57	58
300			62	57
		1	l 67 I 71	57 56
			I 71 I 76	55
工 250 -		-	1 12	54
	}.		85	54
<u> </u>		1	04	53
		<del></del>	95	53
200	}		I 100	53
N D	)		I 105 I 109	52 51
	<i>f</i>		114	⊃# 49
☐ 150 —			119	47
Œ		i	1 124	48
<u>~</u>	}		129	48
ليا مور ليا		) - !	133	48
四 N 100	{		138	47
O. III		\	[ ]43 [ ]48	47 46
<u></u>			152	44
50		) ' ]	157	43
	. \	/ i	162	42
			167	40
0				35
	-50 0	511 100	176	33
-100	AVITY PROF	FILE	[ ]8]  - ]86	31 31
· L, F	AATIL LIVOI	ا الله الله الله الله الله الله الله ال	186 190	29
			195	28
_ <del></del>		i	200	28
			205	26
		•	210	25
			214	25
			l 239 l 224	24
			224	24

### ROUND NUMBER 428 CONTINUED

1	229	23
I	2 3 3	21
ŀ	238	20
ŀ	243	50
I	248	20
Ī	253	19
Ī	257	18
I	262	18
I	267	18
1	272	18
1	276	17
I	281	16
ľ	286	15
ľ	291	14
I	296	14
I	301	13
I	305	12
I	310	11
1	315	10
Ţ		

ROUND NUMBER -- 422

PROJECTILE MASS (GM) --10.368

PROJECTILE TYPE -- SPEER, JSP, 38CAL PROJECTILE VELOCITY (MPS) -- 437.06

PRO	JECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
	METRATION STANCE (MM) +7 32 67 105 140 154 205	PRESENTED AREA (MM++2) 63 103 107 107 111 104 58	CROSS=SECT AREA (MM++2) 63 103 107 113 121 105 62	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 19 I 23 I 28 I 33 I 37 J 42	CAVITY RADIUS (MM) 39 44 46 49 52 54 55 56 58
_	300			1 47 1 52 1 56 1 61 1 66 1 71	59 60 60 61 60 60
ON DEPTH	200 -			I 75 I 80 I 85 I 89 I 94 I 99 I 104	59 58 57 57 55 57 56
ENETRATI(	150 -			I 108 I 113 I 118 I 122 I 127 I 132	55 54 53 51 50 48
<u>а</u>	50 -			I 136 I 141 I 146 I 151 I 155 I 160 I 165	49 48 46 44 44 42 41
	-100 C	-50 0 AVITY PRO	50 100 FILE	I 169 I 174 I 179 I 184 I 188 I 193	39 37 35 33 32 31
·.		5	27	I 198 I 202 I 207 I 212 I 217 I 221	31 29 29 27 26 25

### ROUND NUMBER 422 CONTINUED

I	226	25
1	231	24
1	236	22
1	240	5.5
1	245	19
I	250	21
1	254	20
1	259	20
I	264	19
I	268	19
Ī	273	1.5
I	278	18
Ī	283	1.5
I	288	16
Ţ	292	15
I	297	15
Ī	302	1.4
Ī	306	13
I	311	12
1	315	11
t		

ROUND MUMBER -- 438

PROJECTILE MASS (GM) --- 10.368

PROJECTILE TYPE -- SPEER, JSP, 38CAL PROJECTILE VELOCITY (MPS) -- 441.96

PROJECTILE DE	FORWATION	I CAVITY MEASUREMENTS		
PERETRATION DISTANCE (RM)		AREA (MM++2)	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (NH)
0 .	25	•	0	35
35 71	-19		4	37
106	4 8		l 9 [ 7]	39 209
141	25	56	93	219
199	58	_	117	227
219	60	60	28	48
			32	49
		1	37	51
4	*		42	52
		1		53
			51	53
300	1711		56	53
	/ }		61	54
			i 66 i 70	53 53
工 250		<b>→</b>	75	53
<del> </del>			80	53
Ω			84	53
П 200	}		89	53
500 <del> -</del>	/	1 - 1	94	53
N O	)		488	257
	)	1	509	256
<del></del>	<i>\</i>	1		252
L 150	)		112	52
œ	1			52
<del></del>	{			50 50
ENE TRA		\ \ \ \ \	132	50
			136	50
۵	1		14B	49
		1		49
50				49
				48
		/		47
c L				46
	-a 0	50 188		44
	-50 O	_		43
CA	VITY PROF	ILE :	178 183	43 42
		í	188	42
		i	192	41
	•	Ī		43
		3	202	40
•			207	38
		529	213	38
		I		37
		1	221	38

#### ROUND MUMBER 418 CONTINUED

I	225	38
j	230	37
1	235	37
1	239	37
1	244	35
ı	249	34
1	254	33
Ţ	258	32
I	263	31
1 .	268	30
1	273	28
I	277	26
1	282	27
I	286	25
1	291	23
1	296	22
i	301	21
Ī	305	20
I	310	18
I		

ROUND NUMBER -- 446 PROJECTILE HASS (GH) -- 10-238

PROJECTILE TYPE -- SPEER, SNC, 38CAL PROJECTILE VELOCITY (MPS) -- 345.03

PROJECTILE DE	FORMATION		I CAVITY MEASURE	MENTS
PENETRATION DISTANCE (MM) -2 21 52 81 109 146 161	PRESENTED AREA (MM**2) 246 209 270 238 210 271 217	AREA (MM++2)	PENETRATION I DISTANCE (MM) 0 1	CAVITY RADIUS (KM) 35 37 39 43 46 48 50 52 52
300 <u>T</u> 250			I 59 I 65 I 71 I 77 I 83 I 89 I 95 I 101	51 51 50 49 48 47 46
RATION DE 1200			1 107 1 113 1 119 1 125 1 131 1 137 1 143	43 42 41 40 39 38 36
100 - 50 -			I 154 I 160 I 166 I 173 I 178 I 184 I 190 I 197 I 202	33 32 30 30 29 28 27 25
	-50 0 VITY PRØF	50 100 FILE	1 208 1 214 1 220 1 226 1 232 1 238 1 244 1 250 1 256	23 22 20 19 17 15 13 12
		531	l 262 I 268 I 274 I 280	10 9 8 8

### ROUND NUMBER 446 CONTINUED

I	285	8
I	291	7
Ì	297	6
].	303	6
?	309	6
ľ	315	3

ROUND NUMBER -- 447

PROJECTILE MASS (GM) --- 30-238

PROJECTILE TYPE -- SPEER SHC. 38CAL PROJECTILE VELOCITY (MPS) -- 358-75

PROJECTILE (	EFORRATION		I CAVITY HEASU	REMENTS	<del></del>
PENETRATION DISTANCE (NI -3 24 62 301 140 889 214	PRESENTED 13 AREA (MM**2) 46 49 55 109 182 103 92	48	I PENETRATION: I DISTANCE (MM) I 0 I 6 I 11 I 17 I 24 I 29 I 35 I 41	25 25 26 27 29 30 30	
300			1 48 I 53 I 60 I 66 I 71 I 77	30 31 32 32 33 33	
250 H			I 83 I 89 I 95 I 102	30 30 31 31	
000 DE			I 108 1 114 I 120 1 125	31 32 32 32 33	
150 L		+	1 131 1 137 I 143	33 33 33	
PENETRATION 100 100 100 100 100 100 100 100 100 10		_	1 150 1 156 1 161 1 167	34 34 34 34	
50		1	I 173 I 179 I 185 I 191	34 34 33 31	
0 -100	-50 0		I 197 I 203 I 209 I 215	32 30 31 30	
	CAVITY PROF	T.E.	1 221 1 227 1 233 1 239	29 28 27 25	
		533	1 245 1 251 1 257 1 263	24 22 20 19	
			I 269 I 275 I 281	19 18 17	

#### ROUND NUMBER 447 CONTINUED

I	287	18
I	293	17
I	299	16
I	305	15
1	311	14
T.		

ROUND NUMBER --- 414

PROJECTILE HASS (GR) --10.238

PROJECTILE TYPE -- SPEER, SWC, 38CAL

PROJECTILE VELOCITY (MPS) --- 373.38

PROJECTILE DE	FORMATION	·	I CAVITY MEASURI	CWE'MT C
			I	
PENETRATION DISTANCE (MM)	PRESENTED AREA (MM=*2)		I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM)
0	22		1 0	32
29	14		3 4	33
59	2	49	1 9	35
88	5	41	1 14	37
150	13	44	1 19	40
162	14	52	1 24	42
185	27	48	1 28	44
			1 33 1 3&	44 45
		•	I 38 I 43	45 47
		•	1 43 1 47	48
		,	, 7, J 52	47
		,	57	48
300			61	48
	1 / 1		1 66	48
			1 71	48
_		1	I 76	47
王 250		<b>→</b> !	1 81	47
۵_	)		I 85	47
ш	/		90	46
200	/	1 .	95	46
_ 200 F	/	1	I 99	45
	/		I 104 I 109	44 44
<del></del>	}	•	l 114	43
<u></u> 150 ⊢		\		42
Œ	}	\		42
NETRATION -	>			43
		\		42
100	1			41
لبا		1	142	40
۵.	1	1		40
50	}	1		39
		) 1		39
		1		38
		/ !		37
a L				35
- 100	E0 0	58 100		35 34
-100	-50 0	50 100		33
CH	VITY PROF	ILE :		33
		Ī		31
		Ī		31
		I		29
		, l	209	28
		535	213	27
		j		27
		1	223	26

### ROUND NUMBER 414 CONTINUED

I	228	24
I	233	24
1	237	23
I	242	23
I	247	23
I	252	22
I	256	21
1	261	21
1	266	21
Ī	271	20
Ī	275	19
Ŧ	280	18
Ī	285	18
ł	290	16
1	2.94	15
ŀ	299	13
I	304	32
Ī	309	11

ROUND NURBER -- 445 PROJECTILE HASS (GM) --10.238

PROJECTILE TYPE -- SPEER, SMC, 3 BCAL PROJECTILE VELOCITY (MPS) -- 420.93

PROJECTILE DEFORMATION	I CAVITY MEASUREMENTS
PENETRATION PRESERTED CROSS-SECT DISTANCE (NH) AREA (NH+02) AREA (NH+02)	<del>-</del>
0 67 67 31 100 100	I 0 - 31
31 100 100 66 105 106	I 6 35
101 106 124	I 12 40 I 17 45
135 93 125	1 24 49
179 118 122	1 30 52
198 118 122	1 36 55
46.6	1 42 56
	1 48 58
	I 54 59
	1 60 60
300	1 66 62
	1 72 62
	I 78 62
<del></del>	1 84 61
王 250 — / — —	I 90 60
	I 96 59
<u> </u>	J 102 59
200	1 108 58
	1 114 57 1 120 55
Z D	1 127 52
}	1 132 49
→ 150 →	I 139 48
	I 145 46
£ / / /	I 151 43
	1 157 41
₩ 100 <b>-</b>	I 163 40
	I 169 36
Δ.	1 175 37
50	1 181 36
50 \	1 187 35
	1 193 35
	1 199 35
	I 205 34 I 211 32
-100 -50 8 50 100	I 217 29 I 223 25
CAVITY PROFILE	I 229 23
	1 235 24
	I 241 23
	1 248 21
	I 253 20
	1 260 19
537	1 266 18
. 55/	I 272 18
	1 278 17
	1 284 17

### ROUND NUMBER 445 CONTINUED

1	2 <b>9</b> 0	17
I	295	17
1	302	16
I	308	15
3	314	15
Ī	320	14
1	3 <b>2</b> 5	12
ľ		

ROUND NUMBER -- 444 PROJECTILE HASS (GM) -- 10 -238

PROJECTILE TYPE -- SPEER, SWC, 38CAL PROJECTILE VELOCITY (MPS) -- 445-62

PROJECTILE DI	EFORMATION		CAVITY HEASUREM	ENTS
PENETRATION DISTANCE (MM) 2 33 69 103 134 174	PRESENTED RREA (HH++2 82 163 137 132 127 134 117	) AREA (KM++2) 82 163		AVITY ADIUS(NH) 32 37 44 50 54 56 59 61 62 63
300 ± 250			1 60 I 65 I 71 I 78 I 84 I 90 I 95 I 801	64 64 63 62 63 60 59
TRATION DE		) - i	1 107 1 113 1 119 1 125 1 131 1 137 1 143 1 149	60 59 56 55 52 50 48 47
DEN = 000 F			1 161 1 167 1 173 1 179 1 185 1 191 1 197	42 41 39 37 36 36 37
	-50 0 VITY PRØF	50 100 FILE	215 221 227 233 239 244 250	33 32 30 28 26 25 23
		539	1 263 1 269 1 275	18 16 15 13

#### ROUND MUMBER 444 CONTINUED

J	286	12
I	2 <b>9</b> 2	11
I	298	10
1	304	10
1	310	9
I	316	7

ROUND NUMBER -- 433 PROJECTILE MASS (GM) -- 10-238

PROJECTILE TYPE -- SPEER, SWC, 38CAL PROJECTILE VELOCITY (MPS) -- 523.65

PROJECTILE DE	FORMATION		1 CAVITY HEASUR	EMENTS	<del></del>
PENETRATION DISTANCE (MM) 1 35 73 808 142 181 199	PRESENTED AREA (MM++2) 73 150 157 172 170 154 172	AREA (MM**2) 73 150 165 177 171 160 177	I PERETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 18 I 23 I 28 I 33 I 37 I 42	CAVITY RADIUS (RM) 34 37 41 46 49 53 56 59 60 62	
	-50 0 AVITY PROF	50 180	1 47 1 52 1 56 1 61 1 66 1 71 1 75 1 80 1 85 1 90 1 94 1 99 1 104 1 108 1 13 1 18 1 122 1 132 1 36 1 712 1 36 1 712 1 36 1 78 1 56 1 60 1 156 1 170 1 74 1 79 1 84 1 89 1 93 1 98 1 193 1 98 1 203 1 208 1 212 1 217	623 633 633 633 633 633 633 633 633 633	

### ROUND NUMBR 413 CONTINUED

ī	227	2.6
1	231	24
1	236	23
j	240	22
I	245	20
1	250	18
I	255	18
1	259	16
Ī	264	15
1	269	14
1	274	13
I	278	32
Ī	283	12
I	288	11
I	293	10
I	2 <b>97</b>	9
1	302	9
3	307	7
1	311	7
I	316	6
I		

ROUND NUMBER -- 411
PROJECTILE TYPE -- SPEER, WC, 38CAL

PROJECTILE MASS (GM) -- 9.590
PROJECTILE VELOCITY (MPS) --178.31

PROJECT	LE DEFORMAT	IDN		CAVITY MEASUR	EMENTS
PENETRATO DISTANCE O O O O O O O O O O O O O O O O O O O	E (MM) AREA	NTED CROS (MM++2) AREA 0 0 0 0 0 0	S=SECT	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 19 I 23 I 28 I 33 I 37	CAVITY RADIUS(MM) 15 15 15 16 16 18 18
300		· //		42 47 52 56	18 18 17 17
∓ 250 <u>A</u>			<del>-</del>	I 61 I 66 I 71	16 15 14
000 DE			_	75 80 85 90	14 14 13 12
NH 150	_			94 99 1 104 1 109	12 11 12
100 H				I 113 I 118 I 123 I 128	12 12 11 11
Δ. 50	-			I 133 I 137 I 142 I 147	10 10 10 10
3 -	100 -50 CAVITY	s so PROFILE	188 I	I 151 I 156 I 161 I 166 I 171	10 10 10 10
4.			1 1 1	180 185 189 194 199 1204 208	10 10 10 9 10 10
		543		I 213 I 218 I 223	9 9 9

# ROUND NUMBER 411 CONTINUED

I	227	9
I	232	9
ľ	237	8
I	24 l	8
I	246	8
1	251	7
I.	256	7
I	260	7
1	265	6
I	270	6
Ĭ	<b>27</b> 5	5
I	280	5
I	284	5
I	289	5
I	294	4

ROUND NUMBER -- 407 PROJECTILE HASS (GR) -- 9\_590

PROJECTILE TYPE -- SPEER, NC. 30CAL PROJECTILE VELOCITY (MPS) -- 274-93

ROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
ENETRATION ISTANCE (NH)	PRESENTED AREA (MM == 2)		I I PENETRATION I DISTANCE (MM)	
-7	84	84	1 0	23
16 42	67 74	67 75	i 5 i 9	24 26
42 71	72	75 73	, <del>,</del> I 14	27
101	67	67	i 19	29
143	58	59	i 24	30
162	48	51	I 28	31
			1 33	32
			1 38	32
		•	1 43	31
			1 47	30
000			I 52	30
300	1 / 1 3		1 57	30
1			I 62	30 30
}	1 (		1 67 1 71	29 28
250	1 • 1		1 76	28
200 - 200 - 150 - 150 - 100 -	) {	٦	I 81	28
-	/		1 86	28
7			i 90	28
° 200 ⊢		4	1 95	28
:	}		I 100	27
•	}		I 105	26
1.50	(		1 109	26
150	/	$\dashv$	1 114	25
:	}		I 119	24
-			1 124	24
100	/		1 128	23
100			1 133	23 22
,			J 138 I 143	21
	1		1 143 1 147	50
50 <del> -</del>		<b>→</b> .	1 152	19
		ļ	I 157	19
			1 162	19
	\ \ \ /		I 166	20
0			1 171	20
-100	-50 O	50 100	1 175	19
	VITY PROF	TIF	I 180	19
O,	11101		1 185	18
			I 190	18
			1 195	18
			I 199	18
			I 204	18
		UT.J	I 209	18
			1 214 1 218	18 18
			. /15	

# ROUND NUMBER 407 CORTINUED

1	228	18
I	233	17
I	238	16
1	242	15
1	247	16
1	252	16
Ì	257	16
ì	261	16
I	266	17
Ī	271	16
I	276	16
ī	280	16
1	285	15
Ī	290	15
1	294	14
I	299	14
ï	304	13
Ī	309	13
Ī	314	12
Ť		

ROUND NUMBER -- 409 PROJECTILE MASS (GN) -- 9.590

PROJECTILE TYPE -- SPEER, WC, 30CAL PROJECTILE VELOCITY (MPS) -- 287-12

PR	PROJECTILE DEFORMATION			1 CAYITY MEASUREMENTS			
	BETRAT STANCE -6 17 43 75 105 147 168		PRESENTE AREA (HH: 74 79 90 90 89 101 87	D CRE		PENETRATION   DISTANCE (MM)   O   STANCE (MM)	CAVITY RADIUS (MM) 23 25 26 28 29 30 32 34 34
	300			1		1 48 1 53 1 57 1 62 1 67	33 31 32 29 28
PTH	250				-	1 72 1 77 1 81 1 86	28 27 28 27
ON DEPTH	200					1 91 1 96 1 101 1 105	27 27 26 27
	150					I 110 I 115 I 120 I 125	26 25 25 24
PENETRAT	100		}	}		I 130 I 134 I 139 I 144	23 23 23 22
	50	_			_	I 149 I 153 I 158 I 163 I 168	20 21 20 20 20
	· -1		-50 0 VITY P	50 RØFIL	100	1 173 1 178 1 182 1 187	19 19 19
						I 192 I 197 I 201 I 206	20 19 18 18
			·		547	i 211 I 216 I 221 I 225	17 16 16 16

# ROUND NUMBER 409 CONTINUED

I	230	15
l	235	14
1	2 40	14
1	245	14
1	250	14
1	254	13
I	259	11
I	264	11
1	269	11
1	273	10
1	278	9
1	283	9
1	288	8
ľ	293	8
1	297	8
1	303	8
I	307	7
I	312	7
I	317	7
1	321	6
I		

ROUND NUMBER -- 443

PROJECTILE WASS (GM) -- 9.590

PROJECTILE TYPE --- SPEER, WC. 38CAL PROJECTILE VELOCITY (MPS) --- 299.92

PROJECT	ILE DEFORMATION		CAVITY MERSUREMENTS	<del></del>
PENETRA DISTANC	E (MH) AREA (MH++2)		I I PENETRATION CAVITY I DISTANCE EMM3 RADIUSEMM3	
<del>-</del> 3		72 63	1 0 25 1 6 26	
49	73	74	1 12 . 27	
82			18 29	
115 160		69 70	1 24 31 1 30 33	
181		74	I 36 34	
,,,	• • • • • • • • • • • • • • • • • • • •	,	·	
		1	1 48 34	
			l 60 31 i 66 31	
300		<del></del>	72 31	
			78 30	
		1	84 29	
工 上 250	<u> </u>	·  !	90 29	
			l 97 28 l 102 28	
لسلا	}			
		<u> </u>	1 114 27	
	)	1	121 27	
0 N	) (		126 25	
⊢ ⊢ 150				
Œ	[			
<u>cc</u>			I 150 22	
<del>)</del> 		]		
본 100	F / \	- !		
<u> </u>				
50	<b>-</b> /	-  i	187 20	
		1		
			l 199 20 l 204 20	
0			211 19	
	-100 -50 0	50 100	1 217 <b>20</b>	
	CAVITY PROF	· †   E'		
	CHVIII INGI	•		
		] ]		
		1	1 252 17	
-		. 1		
		549		
			277 15	
			283 14	

### ROUND NUMBER 443 CONTINUED

Ī	289	14
1	295	13
1	301	13
1	307	11
I	313	11
I	319	10

ROUND NUMBER -- 442 PROJECTILE MASS (GM) -- 9.590

PROJECTILE TYPE -- SPEER, NC, 38CAL PROJECTILE VELOCITY (MPS) -- 332.54

****	PROJECTILE DE	FORMATION		I CAVITY HEASURI	EMENTS
	PERETRATION DISTANCE (MM) 0 25 56 92 328 173 396	PRESENTED AREA ENN**2} 62 63 55 54 66 98 91	AR EA (MM++2) 62 63 57 55 66 113	PENETRATION DESTANCE (MM) O H 9 H 14 H 19 H 23 H 28 H 33 H 37	CAVITY RADIUS (MM) 25 26 27 29 30 33 34 35
	300			1 42 1 47 1 52 1 56 1 61 1 66	36 36 37 38 37 36
1 1 1	_			70 1 75 1 80 1 85 1 89	35 36 36 35 35
NETTO	150			F 94 F 99 F 104 F 108 F 113	34 34 33 32 33
0 H L L L L L L L L L L L L L L L L L L	100			1 118 1 123 1 128 1 132 1 137 1 141	33 33 32 30 29 29
	50			146 1 151 1 156 1 160	30 29 29 30 30
	-100 -5 CAV	50 0 5 ITY PRØFI		184 i 189	29 29 29 27 28
	÷.		551	217	29 28 28 27 27 27 27

### ROUMD MUMBER 442 CONTINUED

1	226	27
I	233	26
1	236	26
Ī	241	25
1	245	24
ī	250	23
i	255	22
Ī	260	22
Î	265	21
I	269	21
1	274	20
Į	279	\$0
1	283	19
I	288	19
I	293	18
1	298	17
I	302	15
I	307	14
1	312	13
I	316	13
Ī	321	13
Ī	325	11
ī		

ROUND NUMBER -- 430 PROJECTILE HASS (GK) -- 9.590

PROJECTILE TYPE -- SPEER, NC.38CAL PROJECTILE VELOCITY (MPS) -- 353-87

PROJECTILE DEFORMATION	I CAVITY MERSUREMENTS
PENETRATION PRESENTED CROSS-SECT DISTANCE (MM) AREA (MM**2) AREA (MM**2) -1 68 68 68 69 59 60 75 75 75 98 59 64 148 33 39 178 81 83 199 68 70	PENETRATION CAVITY
300	I     48     37       I     52     37       I     57     37       I     61     38       I     66     38
T 250	I     71     38       I     76     37       I     80     37       I     85     38       I     90     38       I     95     37
N 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	I 99 38 I 104 38 I 109 38 I 113 38 I 118 39 I 123 38
N 100	I     128     38       I     133     38       I     137     38       I     142     37       I     147     37
0 -100 -50 0 50 100	I     152     37       I     156     37       I     161     35       I     166     35       I     170     36       I     175     36
-100 -50 0 50 100 CAVITY PROFILE 553	I 180 35 I 185 35 I 190 34 I 194 33 I 199 34 I 204 34 I 208 34 I 213 33 I 218 33 I 223 33

## ROUND NUMBER 410 CONTINUED

Ĭ	227	31
i	232	30
I	237	29
I	242	27
1	246	26
1	251	25
Ţ	256	23
j	260	21
1	265	20
I	270	19
1	275	18
I	280	16
1	284	35
1	289	15
1	294	14
1	299	13
1	<b>30</b> 3	12
I	<b>30</b> £	11
I	319	10
1	318	10
j	322	9

ROUND NUMBER -- 406

PROJECTILE MASS (GM) -- 9.590

PROJECTILE TYPE -- SPEER, WC, 38CAL PROJECTILE VELOCITY (MPS) -- 408.43

PROJECTILE DE	FORMATION		I CAVITY MEASURI	EMENTS	
PENETRATION DISTANCE (RM) -1 28 62 96 127 167 186	PRESENTED AREA (MM*=2) 145 77 94 88 99 85	AREA (HM**2) 145 77 95 88	J PENETRATION I DISTANCE (MM) J O I 6 I B2 I 17 I 24 I 30 I 96 I 41	33 37 40 43 47 48 49	
200 CEPTH 000 051 COS 0052 COS 000 COS			I 47 I 53 I 60 I 65 I 71 I 77 I 83 I 89 I 95 I 101 I 107 I 113 I 119 I 125 I 131 I 137 I 143 I 149 I 155 I 161 I 167 I 173	49 48 46 46 46 45 44 41 39 41 40 40 37 34 34 32 31 29 27 27 26	
0. 50 -100	-50 0 VITY PROF	50 100 I	1 179 1 185 1 191 1 197 1 203 1 209 1 215 1 221	22 23 23 22 21 20 18 17 16 17 16 14 13 12 12 11	

# ROUND NUMBER 406 CONTINUED

j	287	8
1	293	8
ľ	2 <b>9</b> 8	7
I	304	7
I	310	6
I	316	5

ROUND NUMBER -- 441 PROJECTILE MASS (GM) -- 9.590

PROJECTILE TYPE -- SPEER, NC, 30CAL PROJECTILE VELOCITY (MPS) -- 423.06

PROJECTILE DE	FORMATION		I CAVITY REASUR	MENTS
PENETRATION DISTANCE (MM) 0 32 71 312 352 203 229	PRESENTED AREA 4MM **23 85 77 87 70 79 79	77 87 70	PENETRATION	CAVITY RADIUS (MM) 34 37 39 42 44 47 48 49 50
300 DEPTH 500 0 0 0 CE	-50 0 RVITY PROF	50 100	154 158 163 168 173 178 183 187 192 197 202 206 211 216	51 52 51 52 51 51 50 49 48 47 46 46 44 43 41 99 39 36 37 36 37 38 31 31 31

### ROUND NUMBER 441 CONTINUED

1	231	30
Ī	236	28
Ī	240	27
I	245	28
1	250	28
Ï	255	28
ī	259	27
Ī	264	26
Ī	269	26
i	274	24
j	279	22
i	283	22
Ī	288	22
I	293	21
Ī	298	21
Ī	303	19
1	308	18
ì	312	18
ī	317	18
Ī	322	18
Ī		

ROUND NUMBER -- 412

PROJECTILE TYPE -- SPEER - WC - 38 CAL

PROJECTILE HASS (GH) — 9.590

WC.38CAL PROJECTILE VELOCITY (HPS) —462.38

PROJECTILE DEFORMATION			<del></del>	CATITY HEASU	REMERTS	
	ETRATIO TANCE ( 3 39 75 113 148 190 210		CRUSS-SE #2) AREA (MM 83 97 113 107 114 123 130	**2} ]  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	DISTANCE CMM 0 4 9 14 19 23 28 32	36 39 43 46 50 53 54 56
	300		/	1 1 1 1	47 52 56 61	58 58 59 59 59 59
PTH	250		_	]	80	59 59 60 59
RATION DEPTH	200			1	89 94 99	59 58 57
ATIO	150		_	F	108 113 118	58 57 56 55
PENETR			_	] I	634 321	53 5 257 7
<u>С</u> Н	50	-	) -	I	141 146 151	48 45 44
	0				160	44 43 42 41
		o -50 o CAVITY f		00 1	174 179 183	38 37 35
				1 1 1	193 198 202	32 31 31 30
			559	1 1 1	1058 1081	2 <del>9</del> 140 137 102

# ROUND NUMBER 412 CONTINUED

556	25
231	25
236	24
240	23
245	21
250	18
254	. 19
	18
	18
268	18
273	17
	17
	16
	15
	15
	14
	13
	12
	11
	11
320	14
	231 236 240 245 250 254 259 268 273 278 287 292 296 301 306 311 316

ROUND NUMBER -- 440 PROJECTILE MASS (GH) -- 9.590 PROJECTILE VELOCITY (MPS) --494.69

PROJECTILE DIAMETER (CN) -- 9.068

PROJECTILE TYPE -- SPEER, WC, 38 CAL

PROJECTILE DEFORMATION			I CAVITY MEASURI	MENTS
PENETRATION DISTANCE (RM) 1 36 71 107 138 176 193	PRESENTED ( AREA (MM**2) / 80 84 85 81 73 66 75	CROSS-SECT AREA (RH##2) 81 85 85 83 73	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 18 I 23 I 28 I 33 I 38 I 42	CAVITY RADIUS (WM) 40 43 47 50 52 53 55 56 56
300			1 47 1 52 1 56 1 61	57 57 57 57
王 250 -			I 66 I 71 I 75 I 80	56 54 53 52
1 0 N P P P P P P P P P P P P P P P P P P		_	1 85 1 90 1 94 1 99	52 50 48 46 44
150 H 150			I 104 I 109 I 114 I 118 I 123	46 46 45 43
T 100 -			I 12B I 133 I 137 I 142	40 37 35 33
50			1 147 1 151 I 156 I 161 I 166	32 31 29 30 30
-100	-50 0 AVITY PRØF	ILE	I 170 I 175 I 180 I 184	30 27 25 26
			I 189 I 194 I 199 I 204 I 208	25 24 23 22 19
	5	61	1 213 1 218	18 18

1 223

18

### ROUND NUMBER 440 COMPINUED

ł	227	17
1	232	- 16
1	237	15
1	241	. 14
1	246	12.
1	251	11
1	256	10
Ţ	260	10
I	265	9
1	270	8
1	275	7
Ĭ	279	7
1	284	6
1	289	6
1	294	6
1	298	5
1	303	5
I	308	5
1	312	5
I		

ROUND NUMBER -- 439

PROJECTILE MASS (GM) -- 9,590

PROJECTILE TYPE -- SPEER, WC. 38CAL PROJECTILE VELOCITY (MPS) -- 514.81

PROJECTILE DEFORMATION	I CAVITY MEASUREMENTS
PENETRATION PRESENTED CROSS-SEC DISTANCE (MM) AREA (MM**2) AREA (MM*  4 64 64 64 64 64 64 64 64 64 64 64 64 64	#2) I DISTANCE (MM) RADIUS(MM) I 0 47 I 4 49 I 9 51 I 14 53 I 19 55 I 23 57 I 28 58 I 33 59 I 38 60 I 42 60
300 DEPTH 200 PTH 200	I 47 60 I 52 59 I 57 58 I 62 56 I 66 56 I 71 54 I 76 53 I 81 52 I 86 52 I 90 52 I 95 51 I 100 51 I 104 49 I 109 46 I 114 46
150 - S0 0 50 L00	I       119       44         I       123       44         I       128       42         I       133       41         I       138       39         I       142       37         I       147       36         I       152       34         I       157       32         I       161       30         I       166       29         I       171       29         I       176       27         I       180       26
CAVITY PROFILE 563	I 185 26 I 190 24 I 195 23 I 200 20 I 204 20 I 209 18 I 214 18 I 219 18 I 224 17

## ROUND NUMBER 439 CONTINUED

ľ	228	16
1	233	15
I	<b>23</b> 8	13
I	242	11
Ī	247	11
I	<b>25</b> 2	10
I	257	8
I	261	7
I	266	6
I	271	6
Ī	276	5
ſ	281	<b>r</b> <sub>2</sub>
Ī	285	5
I	290	5
Ī	295	5
1	300	3
Ť		

ROUND NUMBER -- 438

PROJECTILE TYPE -- SPEER + WC + 38CAL PROJECTILE VELOCITY (MPS) -- 520 - 90

PROJECTILE MASS (GM) -- 9.590

 		18.3			_
 PROJECTILE DE	FORMATION	1	CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM)			DISTANCE (MM)		
4	95	96 1		47	
37	90	90 1	5	49	
74	112	112	9	50	
109	85	87 1	14	52	
140	74	75		53	
178	105	106	23	<b>5</b> 5	
195	111	115 1	28	56	
		I	! 32	58	
		I	37	58	
		I	42	59	
		I	47	58	
300		I	51	58	
300	/ / /	1 1	56	58	
	/ /	ı	60	56	
		I	<b>6</b> 5	56	
I 250 -		I	70	55	
<b>├</b>		I	74	54	
<u> </u>		I	79	53	
		1	84	54	
□ 200 ⊢		I	89	54	
	/	Į I	93	54	
N O	}	_ I	98	53	
<b>—</b>	(	\ I		51	
		\ 1	·	50	
CIT.				48	
<u>~</u>		)   I	116	45	
	/		121	44	
岁 100	/	\ I		42	
ш l		I		40	
Ω.	/	I		38	
	/	I		38	
50 <del> </del>		\	144	37	
		)   1	149	36 34	
			154	36	
	d i	I	·	36 35	
O L			163	35 33	
- 1.00	-50 0	50 100 T	168	33 31	
	AVITY PROP		<b>-</b> · -		
ŲΓ	TVIII INOI	T L L	177 182	29	
		1		28	
		1	187	27	
		1	191 196	26 24	
		1	201	23	
		i i	201	23 21	
		565 I	210	19	
		ı I		18	
		I	219	18	
				LU	

# ROUND NUMBER 438 CONTINUED

I	224	17
		,
I	229	16
I	233	15
I	238	1.5
I	243	14
I	247	14
I	252	13
I	257	12
Ī	262	11
Ī	266	10
I	271	9
I	276	8
ſ	280	7
I	285	7
I	289	6
Į	294	6
I	299	5
I	304	5
Į	308	5
Į	313	4
ī		

ROUND NUMBER -- 405

PROJECTILE MAS (GH) - 9.590

PROJECTILE TYPE --- SPEER, WC, 38 CAL

PROJECTILE VELOCITY (MPS) -547.12

PR	PROJECTILE DEFORMATION			1 CAVITY MEASUREMENTS		
	RETRATION STANCE (NM) -15 -7 40 82 116 157	PRESENTED AREA (MM**2) 89 222 93 86 82 132 88	CROSS-SECT AREA (MM++2) 89 223 94 87 83 335	PENETRATION I DISTANCE (RM) I 0 I 5 I 9 I 14 I 19 I 24 I 29 I 34 I 39 I 43	CAVITY RADIUS(MM) 48 53 55 58 61 62 63 64 64	
PENETRATION DEPTH	150 - (	50 0 VITY PROF	50 100 ILE	48	63 62 61 60 59 58 57 55 54 53 51 49 48 47 47 45 42 41 40 38 36 35 33 31 29 28 27 25 24	
	_1		567 1	197 202 207 212 217 222	23 22 20 20 20 19 16 14	

# ROUND NUMBER 405 CONTINUED

3	231	13
	236	12
J	241	10
J	246	10
I	251	9
1	255	8
3	260	8
1	265	7
1	270	6
. ]	275	· 6
1	280	5
,	285	4

ROUND NUMBER -- 465

PROJECTILE MASS (GH) --- 32.960

PROJECTILE TYPE -- SPEER, JHP, 41MAG

PROJECTILE VELOCITY (MPS) -315.77

PROJECTILE DE	FORMAT) ON	I CA	LVITY REASURE	MENTS
	AREA (MM++2) AREA	(MM++5) I DE	ENETRATION ESTANCE (NM)	
-6 15	87 8 150 15	7 1	0 5	21 23
43	138 13		11	28 28
71	135 13		17	32
98	148 15		24	36
137	162 16		30	40
153	136 13	6 I	36	43
		Ī	42	45
		1	48	46
		I	54	47
		I	60	48
300			66	48
	1 1 1	1	72 78	47 46
		1	84	47
T 050	( ' )	ī	89	45
王 250 丘		- i	96	43
Ω_		1	102	41
ш <u> </u>	)	I	108	40
200	\ \	3	114	39
	)	1	320	36
0 N	/	I	126	35
		1	132	35 37
₩ 150 W		<b>-</b>	138 144	34 32
A A	(	Ī	150	31
<b> </b>		Í	156	30
¥ 100 -		ï	162	27
Z 100		ı	168	25
L L	{	1	174	23
		I	180	22
50 -		1	186	20
		1	192	19
		I	198	18
		, , , , , , , , , , , , , , , , , , ,	204 210	18 19
0			216	17
-100	-50 0 50	100 <b>i</b>	555	16
CA	AVITY PROFILE	Ĩ	228	16
<u> </u>		Ī	234	14
		1	240	14
		1	246	13
		1	252	12
		Ī	258	12
	569	į	264	12
	500	£	270	11
		Ī	276	11
		Ĭ	282	10

### ROUND NUMBER 465 CONTINUED

1	288	9
3	294	9
I	300	9.
1	306	8
1	312	8
1	318	7
Ì	324	6
1		

ROUND NUMBER -- 468

PROJECTILE MASS (GM) -- 12.960

PROJECTILE TYPE -- SPEER, JHP, 41MA6 PROJECTILE YELOCITY (MPS) -- 333.45

PROJECTILE DIARETER (CR) -- 10.434

PROJECTILE D	EFORMATION	<u> ﺋﺎﻟﯘﻡ ﻣﯩﯟﯨﺮﯨﻐﺎﺕ ﻧﻪﻟﻪ ﺳﺎﻟﯘﺭﯨﮕﺎﺵ ﺧﺎﻟﻪ ﺳﯘﻟﯘﻧﯘﺭﯨﺪﯨﻼﺕ ﭼﺎﻟﻪ ﭼﯩﻠﯩﺮﯨﺮﯨﺮﯨﺪﯨﺪﯨﺮﯨﺮ</u>	I CAVITY MEASURI	EMENTS
PENETRATION DISTANCE (MM	PRESENTED  1) AREA (HR++2)  87	CROSS-SECT AREA (MM==2) 87	I I PENETRATION I DISTANCE (HR) I 0	CAVITY RADIUS (HM) 28
20	177	177	i č	- 33
49	182	183	I 12	37
77	173	175	1 17	42
105	167	168	J 23	45
140	161	183	I 29 I 35	4 <b>8</b> 52
156	157	157	1 35 I 41	53
			1 47	55
			I 53	57
			59	58
300			1 65	57
700			1 7¥	57
			1 76	56
_ 1			1 82	55
王 250 -		4	f 89 I 94	54 52
م ا			1 100	50:
10N DEPTH 500 -			1 106	47
200			1 112	45
- 200	)	7	1 178	42
ā			I 124	40
-	/		1 130	37
<u>←</u> 150			1 135	36
RF	/	1	I 343	35
<del></del>	/	\	1 147	33 33
for the state of t			1 153 I 159	31 31
N 100			1 165	28
			1 171	26
			1 177	26
50 -		) -	1 183	24
			I 189	23
			1 194	20
		/	I 200	19
0			1 206	18
-100	-50 0	50 100	I 212 I 218	17 16
C	AVITY PROF	TIF	1 224	15
			230	14
			1 236	12
			1 242	12
			1 248	10
		and the second s	1 254	10
•		<b>5.71</b>	1 259	9
			1 265	8
			I 271 I 277	8 7
			2 K. I J	•

# ROUND NUMBER 468 CONTINUED

,	I	283	8
	1	289	. 8
	1	295	7
	1	301	7
	<b>T</b> .	307	5
	1		

ROUND NUMBER -- 464

PROJECTILE HASS (GR) --12.960

PROJECTILE TYPE --- SPEER .JHP.43 MAG

PROJECTILE VELOCITY (MPS) -353-57

PROJECT	ILE DE	FORMATION	د الله ويزو وفي هذا الله الله الله الله الله الله الله	I CAVITY HE	SUREMENTS
PENETRA DISTANO	E (MM)	PRESENTED AREA SHM**2	94	] 0	(AH) RADIUS(MM) 23
24 58		189 189	189 190	1 5 1 12	26 32
92		72	72	1 17	36
128		74	75	1 23	41
179 202		72 73	72 75	1 29 1 35	45 47
204	-	13	7.5	1 41	48
				1 47	49
				J 53	50
				1 59	49
<b>90</b> 0			<u> </u>	1 65	49
				1 71 1 76	49 49
				1 83	46
I 250				I 88	44
⊢				1 94	42
<u> </u>		)		1 100	39 37
				1 112 1 106	37 35
200		\	7	i i18	30.
N O		)		I 124	29
-		<i>/</i>		I 130	29
<u>⊢</u> 150			<del>-</del>	I 136	26
Œ 100		}	\	I 142 I 148	26 27
<u> </u>				1 154	56
빌 100	_			1 160	24
П П П				1 165	24
<u>a</u> .			)	I 171	22
(T. ()				1 177 1 183	22 23
50				I 189	21
				I 195	22
			/ ,	1 201	21
0	L			1 207	22
-	-100	-50 0	50 100	1 213 1 219	21 20
	CA	VITY PRO	FILE	1 225	19
1	<b>.</b>			1 230	19
				1 237	21
				1 243	20
				1 248 I 254	20 19
•			F 700 77	1 260	17
			5 <b>7</b> 3	1 266	16
				I 272	16
				I 278	16

### ROUND NUMBER 464 CONTINUED

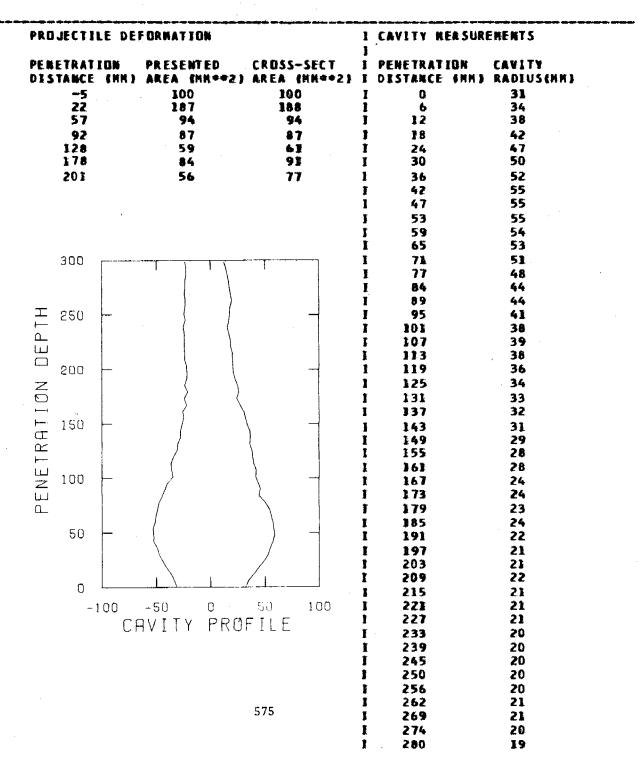
ı	284	16
1	290	 16
I	296	15
I	302	14
1	307	14
ı	313	14
I	319	13
1		

ROUND MUMBER -- 467

PROJECTILE MASS (GM) --- 12-960

PROJECTILE TYPE -- SPEER JHP.41MAG

PROJECTILE VELOCITY (MPS) --- 358-14



## ROUND NUMBER 467 CONTINUED

I	286	18
1	293	18
I	298	17
1	304	17
I	310	16

ROUND NUMBER -- 463 PROECTILE MASS (GR) -- 12.960

PROJECTILE TYPE -- SPEER, JHP, 4 3MAG PROJECTILE VELOCITY (MPS) -- 397.76

PROJECTILE DIAMETER (CN) -- 10.414

PROJECTILE DE	FORMATION	T CAVITY REASUREMENTS		
PENETRATION DISTANCE (MM) 4 34 70 108 345 196 219		88 176 149 141 191	PENETRATION CAVITY   DISTANCE (MM) RADIUS   0 34 37   13 43   15 47   1 24 50   1 29 53   1 35 54   1 42 55	
300 <u>T</u> 250			I     47     55       I     53     55       I     60     55       I     66     55       I     71     55       I     77     54       I     83     54       I     90     53       I     95     52       I     101     51	
NETRR 100 - 150 -		_	I 107 50 I 114 49 I 120 47 I 126 46 I 132 45 I 137 44 I 144 42 I 150 39 I 156 38 I 162 38 I 168 36	
50 -100 -100 CF	-50 0 S		1     174     37       1     180     37       1     186     37       1     192     37       1     198     36       1     204     36       1     210     35       1     216     32       1     222     32       1     228     30	
		577 1	I     234     30       I     240     28       I     246     28       I     251     27       I     258     26       I     264     25       I     270     25       I     276     25       I     282     24	

# ROUND NUMBER 463 CONTINUED

v	1	288	24
	I	294	24
	1	300	22
	1	306	21
	1	312	20
	I	318	19

ROUND NUMBER -- 466

PROJECTILE MASS (GM) ---12-960

PROJECTILE TYPE -- SPEER, JHP, 43 MAG

PROJECTILE WELDCITY (MPS) -486.97

PROJECTILE DIAMETER (CH) -- 10.434

PROJECTILE DE	FORMATION	I CAVITY REASUREMENTS		
PENETRATION DISTANCE (RR) 0 30 68 108 148 203 227	PRESENTED C AREA 4MM+#2) A 109 213 87 60 70 61 67	110 213 88 61 71 76	PENETRATION DISTANCE (NN)  0 6 1 11 18 1 24 1 30 1 36 1 42 1 47	CAVITY RADIUS (RK) 39 44 48 51 54 57 59 59 58
300 PENETRATION DEPTH 500 CEPTH 500	-50 0 AVITY PROF	50 100 I L E	60 66 72 78 84 90 96 1 108 1 120 1 126 1 138 1 144 1 150 1 168 1 175 1 186 1 198 1 198 1 198 1 198 1 217 1 228 1 247 1 253 1 265 1 265 1 265 1 265 1 271	57 56 55 53 51 50 46 45 41 40 41 41 39 37 36 35 32 31 30 29 29 28 28 28 27 26 24 22

# ROUND NUMBER 466 CONTINUED

289	22
2.95	21
301	21
307	39
313	19
	2 <b>95</b> 301 <b>3</b> 07

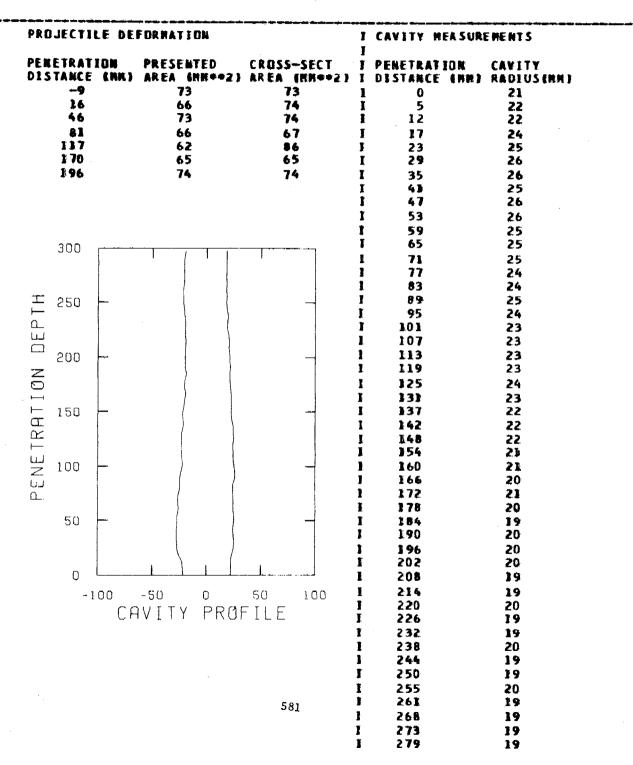
ROUND NUMBER -- 462

PROJECTILE MASS (GM) -- 14.256

PROJECTILE TYPE -- SPEER, JSP, 41MAG

PROJECTILE WELDCITY (MPS) -- 290-17

PROJECTILE DIAMETER (CM) -- 10-414



### ROUMD NUMBER 462 CONTINUED

1	285	19
I	291	19
I	297	18
Ī	303	18
I.	309	17
Ī	315	17
Ī	320	16
T		

ROUND NUMBER -- 470

PROJECTILE MASS (GM) -- 14-256

PROJECTILE TYPE -- SPEER, JSP, 43MAG PROJECTILE VELOCITY (MPS) -- 335.89

PROJECTILE DIAMETER (CM) -- 10-414

PROJECTILE DE	FORMATION	CAVITY HEASUREHENTS		
PENETRATION DISTANCE (NN) 0 26 61 100 139	61 70 75 70 67	AREA (MM**2) 63 70 75 70 67	PENETRATION DESTANCE CHHE G G G G H 6 H 11 H 12 H 12 H 13 H 13 H 14 H 16 H 17 H 18 H 18 H 18 H 18 H 18 H 18 H 18	CAVITY RADIUS (HH) 28 29 30 32 33
197 225	75 74	75	I 29 I 36 I 41 I 47 I 53 I 60 I 65	34 35 36 36 36 36 35
300 H 250 d			F 71 F 77 F 83 F 89 F 95 F 101 F 107 F 113	36 33 31 31 33 32 30 31
TRATION D			1 119 I 125 I 131 I 137 I 143 I 149 I 155	31 30 30 30 30 29 31
100 S0			I 161 I 167 I 173 I 179 I 185 I 191 I 197 I 203	30 28 27 28 27 27 27 28 27
-100 CF	-50 0 RVITY PROF	50 100 FILE	1 209 1 215 1 22k 1 227 1 233 1 239 1 245 1 251 1 256	26 26 24 24 24 24 24 24 24
		583	1 263 1 269 1 274 1 281	22 22 22 22

# ROUND NUMBER 470 CONTINUED

1	287	22
1	293	22
Ţ	299	22
I	304	22
1	310	21
T	and the second second	

ROUND MURBER -- 443

PROJECTILE MASS (GM) --- 14-256

PROJECTILE TYPE --- SPEER, JSP, 41MAG

PROJECTILE VELOCITY (MPS) -357.84

PROJECTILE DIAMETER (CH) -- 10.414

PROJECTILE DE	FORMATION	1 CAVITY REASUR	EMENTS	
PERETRATION DISTANCE (MM) 2 32 68 109 150 208 236	PRESENTED AREA GRN++21 73 79 80 69 86 67	CROSS-SECT AREA (MN942) 74 86 80 70 89 82 78	PERETRATION   DISTANCE (RM)   O   6   1   11   17   23   29   36   42   47   1   54	CRVITY RADIUS (RR) 29 29 30 31 32 34 35 37 37
300			1 59 1 65 1 72 1 78	37 36 36 36
王 250 a		<u> </u>	I 84 I 90 I 96 I 102	35 34 34 33
10N DE - 000 - 000	}	-	I 108 I 114 I 120 I 126 I 132	32 32 31 30 30
ENETRATI			I 138 I 144 I 150 I 156	30 28 30 30
Δ.			I 162 I 168 I 174 I 180	29 64 30 30 28
50			I 186 I 192 I 198 I 204 I 210	26 29 26 27
-100	AVITY PRO	50 100 FILE	I 216 I 222 I 228 I 234	26 26 25 25
		585	I 240 I 246 I 252 I 258 I 264	25 26 26 26 26
			I 270 I 276 I 282	26 25 25

# ROUND NUMBER 463 CONTINUED

I	288	25
- <b>X</b> − ( − 2	294	25
Ī	300	25
I	306.	24
1	312	23
3	318	23

ROUND MUNSER -- 469

PROJECTILE MASS (GR) --14.256

PROJECTILE TYPE --- SPEER, JSP, 41MAG PROJECTILE VELOCITY (MPS) --- 382.22

PROJECTILE DIAMETER (CH) -- 10.414

	PROJECTILE DEFORMATION			I CAVITY HEASUREMENTS					
•		ETRAT TANCE -2 28 66 103 146 203 230	E AM I	PRESENTED AREA EMMess 68 65 90 78 83 75 78	CROSS- 2) AREA 66 69 70 87	(代刊++2) ] B 5 3 B i i 5	DISTANCE (NR D D D D	33 37 39 42 44 46 47 49	
		300		1 (	1		63 1 69	49 50 49 50 50	
	PTH	250	-			- 1	88 94 1 100	48 48 49 47	
	ON DE	200		}			119 125 132	47 48 47 46	
	ПП	150		<i>}</i>		1	1 44 1 150 157	45 45 43 43	
	PENETR	100	_				170 176 182	43 41 40 38	
	<u> </u>	50					194 201 207	37 37 37 38	
		O - 1		-50 O	50	100	213 220 226 232 238	37 38 37 37	
			LH	VITY PRO	IT I L.E.	; ; ; ;	245 251 257 263	35 35 34 32 31	
					587	] ] ] 1	270 276 282 289	31 30 29 29 28	

## ROUND NUMBER 469 CONTINUED

I	301	28
1	307	27
1	314	26
I	320	25
I	326	23
2		

ROUND NUMBER -- 460 PROJECTILE MASS (GM) --14.256

PROJECTILE TYPE --SPEER, JSP, 41MAG PROJECTILE VELOCITY (MPS) --395.33

PROJECTILE DIAMETER (CM) -- 10.414

PROJECTILE DEFORMATION			CAVITY REASUREMENTS		
PENETRATION DISTANCE (MP -3 28 65 104 141 192 214	PRESENTED 1) AREA #MK++2) 98 98 104 114 106 107 108	99 98 104 114 306	F PENETRATION F DISTANCE 6MM F F 0 F 5 F 12 F 17 F 23 F 30 F 35	CAVITY RADIUS (MM) 33 36 41 44 47 51 53	
300 F			1 41 1 48 1 53 1 59 1 66 1 72 1 77 1 83 1 89	55 56 57 57 57 55 54 53 52	
189 1 10N DEP			1 101 1 107 1 113 1 119 1 125 1 131 1 138 1 143 1 149 1 155	53 49 50 49 48 47 44 43 43	
100 - Q 50 -			1 161 1 167 1 173 1 179 1 185 1 191 1 197 1 203 1 209	43 41 38 37 37 35 33 31	
-100	-50 0 AVITY PRØF	ILE	I 215 I 221 I 227 I 233 I 239 I 245 I 251 I 257 I 263	29 28 27 26 24 23 23	
			I 269 I 275 I 281	23 22 23	

### ROUND NUMBER 460 CONTINUED

1	286	22
1	293	23
1	299	19
I	305	19
I	310	17
1	316	17

ROUND NUMBER -- 389 PROJECTILE ASS (GR) -- 12.960

PROJECTILE TYPE -- SPEER, JHP, 44MAG PROJECTILE VELOCITY (MPS) -- 223-11

PROJECTILE DIAMETER (CM) -- 10.897

PROJECTILE DE	FORMATION	<del></del>	I CAVITY HEASUR	ENENT S
PENETRATION DISTANCE (MM) -0 11 34 61 89 129	PRESENTED AREA (MM##2) 79 84 85 88 90 77	AREA (MR*#2) 81 85 88 88 90	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 19 I 24 I 28 I 33 I 38	16 16 17 17 18 19 20 20
380			I 43 I 47 I 52 I 57 I 62 I 67	21 21 21 19 19 20
五 五 五 五 五 五 二			I 71 I 76 I 81 I 86	20 20 21 22
Z 000			1 91 1 95 1 100 1 105	24 24 24 23
H 150			J 110 1 115 1 119 1 124 1 129	22 20 18 18 18
100 – HJ Q.			1 134 1 139 1 143 1 148	17 17 16 14
50			I 153 I 158 I 163 I 168 I 172	14 14 13 14 15
	-50 0 IVITY PROF	FILE	I 177 I 182 I 187 I 192	18 17 18 16 18
		591	I 196 I 201 I 206 I 210 I 215 I 220 I 225	18 19 17 18 18

# ROUND NUMBR 389 CONTINUED

I	230	17
I	235	17
1	240	17
1	244	1.7
I	249	17
1	254	17
I	259	17
Ī	263	16
1	268	15
1	273	. 14
I	278	14
I	283	14
I	288	14
ľ	292	<u> </u>
Ţ	297	14
3	302	13
1	306	12
ľ	311	12
I	316	12
ľ	321	11
1		

ROUND NUMBER -- 388

PROJECTILE MASS (GM) -- 12.960

PROJECTILE TYPE -- SPEER, JHP, 44MAG

PROJECTILE VELOCITY (MPS) -285.29

PROJECTILE DIAMETER (CM) -- 10-897

PROJECTILE DEFORMATION			I CAVITY HEASUR	EMENTS	
	ENETRATION ISTANCE (1 -10 14 42 72 301 144 164		CROSS-SECT } AREA (MM**2) 86 81 92 91 88 88 88	J PENETRATION 1 DISTANCE EMMJ 1 0 1 4 1 9 1 14 1 19 1 23 1 28 1 33	24 25 27 30 33 36 38 39
	300			1 38 1 43 1 47 1 52 1 57 1 62 1 67	40 41 40 40 40 39 39
: H	표 250 -			I 76 I 81 I 86	39 41 41
	200 –			1 90 1 95 1 100 1 105	41 41 41 41
+ + (	<u></u>	-		1 109 1 114 1 119 1 124	40 37 37 35
£ 1	고 - - - - - - - - - - - - - - - - - - -			1 129 1 134 1 139 1 143	35 34 34 33
	50			1 148 1 153 1 157 1 162 1 167	32 30 28 26 25
	-100		50 100	I 172 1 177 I 181	25 24 24
		CAVITY PRO	JFILE .	1 186 1 191 1 196 1 201	24 23 22 22
			593	1 205 1 210 1 215 1 220	21 20 21 20
				I 225	20

## ROUND NUMBER 388 CONTINUED

I	229	19
3	234	19
I	239	18
Ī	244	18
I	248	18
Ĭ	253	1.8
Ţ	258	18
Ī	263	17
1	268	17
1	272	17
Ī	277	16
I	282	16
F .	287	15
I	292	14
I	296	14
1	301	13
ŀ	306	13
I	310	12
Ĭ	315	12
I	320	12
1		

ROUND NUMBER -- 452

PROJECTILE TYPE -- SPEER JHP 44 MAG

PROJECTILE DIAMETER (CM) -- 10.922

PROJECTILE WASS (GM) --12-960
PROJECTILE VELOCITY (MPS) --337-43

PROJECTIL	E DEFORMATION		I CAVITY MEASUREMENTS
PERETRATI DISTANCE -5 18 47 76 103 137 150		AREA (HH.**2) 103 157 235 191 199 222 206	
300			I 48 51 52 52 53 60 53 52 52 51 71 51 51 51
250		_	I 83 49 I 89 48 I 96 46 I 102 45
200			1     107     43       1     113     41       1     120     41       1     125     41
150			1 131 39 I 138 38 I 143 36 I 149 34
100			I 156 31 I 161 28 I 167 26 I 173 25
50			1 179 23 1 185 21 1 191 21 1 197 20
-100		50 100	I 203 18 I 209 16 I 215 15 I 221 13
لـ	CAVITY PROF	1 L. L	I 227 12 I 233 I1 I 239 11 I 245 10

595

257 263

RUND NUMBER -- 387 PROJECTILE MASS (GM.) -- 12.960

PROJECTILE TYPE -- SPEER, JHP, 44 MAG

PROJECTILE VELOCITY (MPS) -344.12

PROJECTILE DIAMETER (CH) -- 10.897

PROJECTILE DE	FORMATION	]	CAVITY MEASUR	E ME NT S	
PENETRATION DISTANCE EMM) -4. 23 54 82 111 145 160		SS-SECT	PENETRATION DISTANCE (MM) 0 4 9 14 18 23 28 33 37	CAVITY RADIUS (MM) 30 32 34 37 42 45 48 50	
PENETRATION DEPTH 200 05 20 20 20 20 20 20 20 20 20 20 20 20 20	-50 0 50 RVITY PROFIL		42 47 52 56 61 66 70 75 80 85 89 94 99 104 40 113 118 123 127 132 137 142 146 151 156 161 165 170 175 179 184	52 54 55 56 56 56 57 57 56 55 54 53 52 50 47 46 43 41 39 38 36 32 31 30 29	
		596 1	189 194 198 203 208 213 217 222	27 26 25 24 22 22 21 20	

### ROUND NUMBER 387 CONTINUED

Į	227	18
I	231	17
I	237	16
I	243	15
1	246	13
Ī	251	12
Ŧ	255	12
1	260	11
I	265	10
I	270	9
I	274	9
I	279	8
Ī	284	8
1	289	6
Ī		

ROUND NUMBER -- 451

PROJECTILE MASS (GM) --- 12-960

PROJECTILE TYPE -- SPEER, JMP, 44MAG PROJECTILE VELOCITY (MPS) -- 377.65

PROJECTILE DIAMETER (CM) -- 10.922

PROJECTILE DEFORMATION		I CAVITY REASURE	RENTS	
PEMETRATION DISTANCE (MR) -6 21 55 85 312 145 159	PRESEMTED AREA (MR**2) 108 147 177 107 217 245 196	AREA (MM**2) 110	PENETRATION POISTANCE (MM)  O  T  T  T  T  T  T  T  T  T  T  T  T	CAVITY RADIUS (NM) 34 39 44 51 54 57 60 62 63
	50 0 S	50 100 ILE	I 53 I 59 I 65 I 71 I 77 I 83 I 89 I 95 I 101 I 107 I 113 I 113 I 125 I 131 I 137 I 142 I 149 I 155 I 161 I 167 I 173 I 173 I 185 I 190 I 196 I 202 I 208 I 214 I 220 I 226 I 232 I 238 I 244 I 250 I 256 I 262	63 63 63 63 61 60 59 57 56 53 50 48 46 43 37 35 33 32 31 30 29 27 26 24 23 21 19 17 16 13 12 11

ROUND NUMBER -- 371

PROJECTILE MASS (GM) --12.960

PROJECTILE TYPE -- SPEER, JHP. 44MAG PROJECTILE VELOCITY (MPS) -- 406.30

PROJECTILE DIAMETER (CH) -- 10.846

PROJECTALE DEFORMATION		<u> </u>	CAVITY MEASURE	MENTS
DISTANCE (HM) AREA -3 21 56 89 119 159	A (MM * * 2) AREA 136 1: 323 3: 260 20 291 30 283 3: 273 2:	S-SECT   1 (MN++2)   1   36     1   23     1   6   1   1   1   1   1   1   1	0 4 9 14 18 23 28 32	CAVITY RADIUS (MM) 50 50 56 60 63 66 68 69
ENETRATION DEPTH  520  100  100			42 47 52 56 61 66 71 75 80 85 90 94 99 104 109 114 118 123 128	71 72 72 73 73 74 73 73 72 71 70 69 67 65 62 59 58 55
50 -100 -50 CAVI	O 50 TY PROFILE	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	137 142 147 151 156 161 166 170 175 180 185 189 194 199 204 208 213 218	45 43 43 42 40 39 40 41 41 41 41 41 41 41 43 38 35

## ROUND NUMBER 371 CONTINUED

1	228	30
1.	232	 28
I	237	26
I	242	27
1	246	27
1	251	25
I	256	22
1	261	 21
Ī	265	21
1	270	20
1	2 75	18
3	280	17
I	284	16
I	289	16
F.	294	15
1	299	14
Ī	304	12
J	308	11
I	313	11
I	318	10
1	322	7

ROUND NUMBER -- 386

PROJECTILE MASS (GM) --14.580 PROJECTILE TYPE -- SPEER, JHP.44 PROJECTILE VELOCITY (MPS) -- 252.07

PROJECTILE DIAMETER (CH) -- 10.897

PROJECTILE DE	FORMATION		I CAVITY MEASUREMENTS
PENETRATION DISTANCE EMM) -11 9 36 65 94 136 157	PRESENTED C AREA (MM++2) A 62 80 81 72 80 76 80		I PENETRATION CAVITY I DISTANCE (MM) RADIUS(MM) I 0 22 I 4 23 I 9 23 I 14 23 I 19 23 I 23 26 I 28 26 I 32 26 I 37 26
300 <u> </u>	1 (1)	<del></del>	1 42 26 1 47 26 1 51 27 1 56 26 1 61 26
E 250		-	66 25 1 70 25 1 75 26 1 <b>8</b> 0 26 1 84 25
200		_	1 89 24 1 94 25 1 99 24 1 104 24 1 108 24
150			1 113 23 1 110 21 1 122 21 1 127 21
50			141 21 146 19 150 19
0			155 19 160 18 165 17 169 19 174 20
-100 CA	-50 0 st VITY PRØF1	) (80 L.E	179 19 163 19 188 18 193 19
		601 I	197 19 202 18 207 17 212 17

### ROUMD MUMBER 386 COMTINUED

I	2 <b>2</b> 6	16
Ţ	231	16
1	235	16
I	240	15
I	245	15
I	249	14
I	254	14
Ī	259	13
1	263	13
ŀ	268	12
ľ	273	11
I	278	11
I	283	11
l	287	1,1
ĭ	292	11
I	297	11
1	301	11
I	306	10
1	310	9
I	315	8
1		

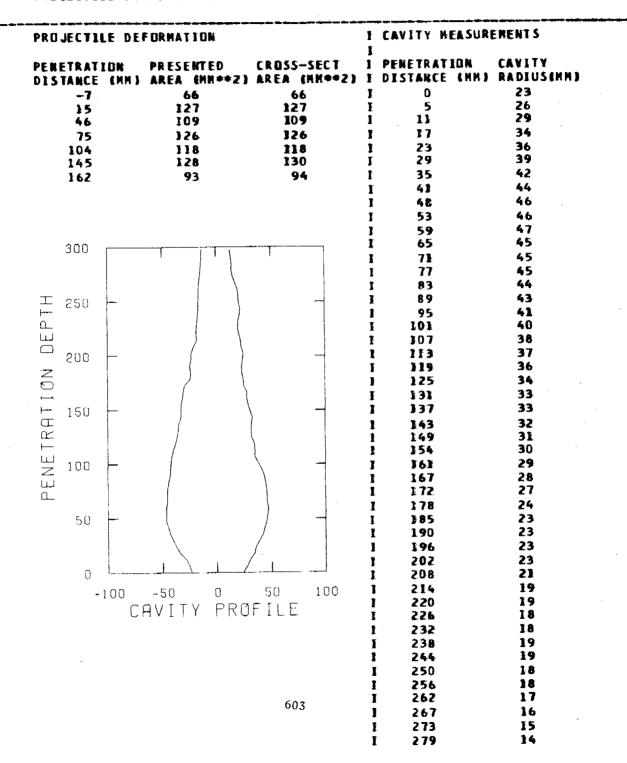
ROUND NUMBER -- 459

PROJECTILE MASS (GM) -- 14.580

PROJECTILE TYPE -- SPEER, JHP, 44 MAG

PROJECTILE VELOCITY (MPS) -363-58

PROJECTILE DIAMETER (CM) -- 10-922



### ROURD MUMBER 459 CONTINUED

I	285	13
1	291	13
1	297	12
1	303	12
I	309	11
1	315	10

PROJECTILE VELOCITY (MPS) --- 303 .89

PROJECTILE DIAMETER (CM) -- 10.897

PROJECTILE TYPE -- SPEER, JHP, 44

PROJECTILE DE	FORMATION	CAVITY ME	CAVITY MEASUREMENTS	
PENETRATION DISTANCE (MM) -7 15 45 74 103 142 160	PRESERTED CROSS— AREA GMM+#2} AREA 6  83 132 132 131 131 131 135 120 127 128	NM**2) I DISTANCE 1		
PENETRATION DEPTH		1 47 1 52 1 56 1 61 1 66 1 70 1 75 1 80 1 84 1 89 1 94 1 99 1 103 1 108 1 118 1 122 1 127 1 132 1 136 1 146 1 146 1 150 1 155 1 160 1 165	47 48 48 49 49 48 48 47 46 45 44 43 42 40 39 38 36 36 35 33 32 31 30 30	
	-50 0 50 AVITY PROFILE 605	100 I 174 I 179 I 183 I 188 I 193 I 197 I 203 I 207 I 211 I 217 I 221	30 29 28 26 25 24 22 21 21 21	

### ROUND MUBER 385 CONTINUES

I	226	18
I	230	17
I	235	17
1	240	16
I	245	15
1	250	15
Ī	254	14
1	259	13
Ī	264	13
Ī	268	13
i	2 73	12
Ī	278	11
j	282	îi
Ī	287	10
i	292	9
Ī	297	9
_	301	
ļ		7
1	306	7
I	311	5

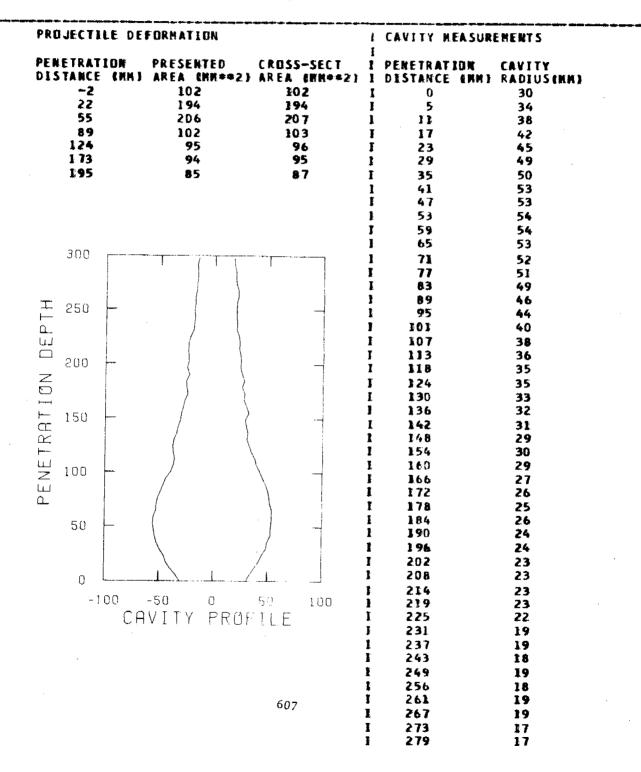
ROUND NUMBER -- 458

PROJECTILE MASS (GM) --14.580

PROJECTILE TYPE -- SPEER, JHP, 44 MAG

PROJECTILE VELOCITY (MPS) -352.96

PROJECTILE DIAMETER (CM) -- 10.922



### ROUND MUMBER 458 COMTINUED

1	285	17
1	291	17
1	2 <b>9</b> 7	16
ľ	303	15
I	309	15
7		

ROUND NUMBER -- 457

PROJECTILE WASS (GM) --14-50

PROJECTILE TYPE -- SPEER, JHP, 44 MAG

PROJECTILE VELOCITY (MPS) -355.70

PROJECTILE DIAMETER (CM) -- BO.922

PROJECTILE DEFORMATION			1 CAVITY MEASUREMENTS	
PERETRATION DISTANCE (MM)	AREA MH##Z) ARE	E EMM**2]	PENETRATION DISTANCE (HM)	CAVITY RADIUS (HM ) 30
-5 20		· ·	! 0 ! 5	35
55			i ií	40
91			17	44
125	88		23	49
1 75	8 <u>7</u>		29	52
199	87	,	35	55 
			41	56
			47	57
			53 60	57 57
300			L 65	56
300 <sub>[</sub>			71	54
	( )		77	52
	)		83	50
≖ 250 ⊢	/		89	48
r			95	45
	(	'	101	42
	}		107	41
200 —	}		I 113 I 119	39 36
N O	(		l 119 l 125	33
(-)			131	34
H 150 H		1	137	33
Œ 130			1 143	31
	)	ļ	149	30
<del>-</del>	\	!	155	29
¥ 100 ⊢		<b>→</b> 1	161	27
ليا		1	167	26
<u> </u>		į 1	173	26
f" (3			1 179	25
50 <del> </del>			185	25
		1	I 191 I 197	25 26
			203	26 26
o L		1 .	209	26
-100	-50 0 50		1 215	25
		100	221	26
LF	AVITY PROFILE	- 	227	24
			F 233	24
			239	24
•			245	23
			251	22
	600		257	22
	609		7 263 1 268	23 23
			268 274	20
			E 281	20
				<b>- -</b>

### ROUND MUMBER 457 CONTINUED

ì	286	18
I	2 92	17
1	299	16
I	304	15
I	310	14
7		

ROUND NUMBER -- 384

PROJECTILE HASS (GM) --14.580

PROJECTILE TYPE --- SPEER, JHP, 44

PROJECTILE VELOCITY (MPS) -360.27

PROJECTILE DIAMETER (CM) -- 10.897

PROJECTILE DEFORMATION			I CAVITY MEASUREMENTS		
	PENETRATION DISTANCE (HM) -6 20 52 90 126 175 198	PRESENTED CROSS- AREA (MM+#2) AREA 64 6- 202 20: 224 22: 88 8- 88 9: 69 8: 79 9:	(MM##2) 4 3 5 9 2 5	I PENETRATION I DISTANCE (MM) I O 5 I 12 I 18 I 24 I 30 I 36 I 42 I 48 I 54	25 32 37 43 46 52 54 57 58
		-50 0 50 PVITY PROFILE	100	61	59 57 55 54 52 49 47 45 43 41 40 38 38 37 35 34 34 33 31 32 31 31 30 29 26 23 24 24 25 24 25 24 27 20 20

# ROUND NUMBER 384 CONTINUED

ŀ	292	20
1	298	19
Ī	304	19
]	310	18
ı	316	18
1	322	18
1	328	17
¥		

ROUND NUMBER -- 379

PROJECTILE MASS (GM) --15-552

PROJECTILE TYPE --SPEER.JSP.44

PROJECTILE VELOCITY (MPS) --- 256-03

PROJECTILE DE	FORMATION		I CAVITY MEASURE	EMENTS
	AREA (MM==2)	CROSS-SECT AREA (MM**2)	I PENETRATION I DISTANCE (MM)	
- 7	82		1 0	26
16	78		1 4	26
41	83		1 9	26
71	77		I 14	25 25
105	71 4.3	. –	I 19 I 23	25 25
152	63 80	81°	I 28	25
177	60		I 33	25
			1 35 1 36	25
			1 42	27
			I 47	28
1			1 52	28
300			1 57	28
	' [ ' \		I 62	28
	}		i 67	27
± 250 L		· · · · · · · · · · · · · · · · · · ·	71	27
± 250 -		ľ	I 76	28
			1 81	28
النا			I 85	29
200	1		<b>9</b> 0	28
	)	7	1 <del>9</del> 5	27
N O			I F00	26
. 🛏			1 105	27
H 150			1 109	27
Œ	}		1 114	28
<u>~</u>			1 119	27
			1 124	26
<del>5</del> 100 ⊢	\		1 128	25
100 –		I	I 133	24
<u>a</u>	1 /	ļ	1 138	23
			1 143	24 23
50 -	( )		J 147 J 152	22
	) /		1 157	20
	}.		1 162	20
0			1 167	20
U		— +·	I 172	21
-100	- <b>5</b> 0 0	57.73	1 177	21
<u>^</u>	AVITY PROF		1 181	21
Ç1	141111101	↓ L. ∟	1 186	21
			1 191	21
			1 195	55
			1 200	21
			I 205	21
		613	1 210	21
			1 215	21
			I 219	21
			1 224	21

## ROUND NUMBER 379 CONTINUED

20
0
Q.S
9
l B
8
9
9
9
9
17
B
7
7
7
6
5
5
5
4
13

PROJECTILE TYPE -- SPEER, JSP, 44MAG PROJECTILE VELOCITY (MPS) -- 263.35

PROJECTILE DEFORMATION			I CAVITY MEASUREMENTS		
PENETRAT DISTANCE -12 9 38 68 100 146 169	ION P	RESENTED REA &MM **2) 72: 83 94 85 81 87 77	,	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 19 I 23 I 28 I 33 I 36 I 42	28 29 29 30 31 32 33 33 33
. 300		Т,	·····-	I 47 I 52 I 57	33 34 34
T ora				1 6E 1 66 1 71	33 33 32
DEP H 250				1 76 1 80 1 85 1 90	32 32 31 31
200 N				1 95 1 99 1 104	30 29 28
☐ 150 ☐	-			1 109 1 114 1 119	29 28 28
PENETRATI	-			1 123 1 128 1 133	27 28 28
ш Д 50				1 137 1 142 1 147 1 152	27 26 25 25
				1 156 1 161 1 166	25 25 25
g -:	L		50 100	I 171 I 175 I 180	25 24 24
	CHV	ITY PRØF	L.C.	1 185 1 190 1 195	26 26 25
			615	1 199 1 204 1 209	24 24 23
			013	I 213 I 216 I 223	23 23 24

# ROUND NUMBER 375 CONTINUED

1	2 <b>2</b> 8	23
1	233	22
1	237	21
1	242	21
Ĭ	247	20
I	252	20
1	256	50
ı	261	20
ľ	266	19
3	271	18
1	275	18
I	280	18
1	285	17
1	289	17
1	294	17
j	299	16
1	304	15
Ţ	309	15
I	313	15
Ì	116	14
1	. 13	17.

PROJECTILE TYPE -- SPEER, JSP, 44MAG

PROJECTILE VELOCITY (MPS) --285.29

PROJECTILE DE	FORMATION		1 CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MH) -10 12 42 74 107 153 177	PRESENTED AREA CMM = 2) 89 87 64 80 88 87 85	CRDSS-SECT AREA (MM##2) 89 97 86 84 88 93	I PENETRATION I DISTANCE EMM I I 0 I 4 I 9 I 14 I 18 I 23 I 28 I 33 I 36 I 42	CAVITY RADIUS (MM) 27 31 31 32 34 35 36 37 38 40
	SU O S	50 100 ILE	1 47 1 52 1 57 1 66 1 71 1 75 1 80 1 85 1 90 1 94 1 99 1 104 1 109 1 116 1 123 1 128 1 133 1 137 1 142 1 147 1 152 1 156 1 166 1 171 1 175 1 180 1 185 1 199 1 194 1 199 1 204 1 218 1 223	41 42 42 41 41 40 40 40 40 40 40 40 40 39 38 38 37 35 35 35 35 35 36 37 26 27 26 27 26 27 26 27 26 26 25 27 26 26 27 26 26 27 26 26 27 26 27 26 27 26 27 26 27 26 27 26 27 26 27 26 27 26 27 26 27 26 27 26 27 27 27 26 27 27 26 27 27 27 26 27 27 27 27 27 27 27 27 27 27

# ROUND NUMBER 374 CONTINUED

1	228	24
1	233	25
I	23 <i>1</i>	24
I	242	23
j	247	22
1	251	21
1	256	21
1	261	22
Ŧ	266	22
1	<b>27</b> 0	21
1	275	20
I	280	21
1	284	21
3	289	21
I	294	21
I	299	19
I	304	19
1	308	18
I	313	17
l	318	16
I	323	15

ROUND NUMBER -- 453

PROJECTILE MASS (GM) --- 35.552

PROJECTILE TYPE -- SPEER, JSP, 44MAG

PROJECTILE VELOCITY (MPS) -299.31

PROJECTILE	EFORMATION		I CAVITY HEASUREMENTS
PENETRATION DISTANCE 6M 54 79 109 141 174 224	PRESENTED 11 AREA 14M**21 78 67 84 82 68 85 79	AREA (MH**2) 79 67 84 82 68 85 79	PENETRATION   CAVITY   DISTANCE (NM)   RADIUS (NM)
300	<del>-                                    </del>		I 53 29 I 59 30 I 65 29 I 71 29 I 78 29
E 250 -			1 83 29 1 89 30 1 95 30 1 101 30
O008 -		w.,	I 107 30 I 114 30 I 119 30 I 126 29
150 -		_	I 132 29 I 137 28 I 143 28 I 149 28 I 156 28
100 –			I 161 26 I 167 24 I 173 23 I 179 23
50			I 185 22 I 191 22 I 197 22 I 203 21
-100 C	-50 0 AVITY PROF	50 100 ILE	I 209 21 I 215 23 I 221 27 I 227 21 I 233 22
,		] ]	I 239 23 I 245 22 I 251 22 I 257 22
		<sup>619</sup> 1	I 263 22 I 269 23 I 275 23 I 281 22

#### ROUND NUMBER 453 CONTINUED

I	287	22
ı	293	23
I	299	20
I	305.	19
ı	311	20
1	317	18

ROUND NUMBER -- 373 PROJECTILE MASS 4GM) -- 15.552

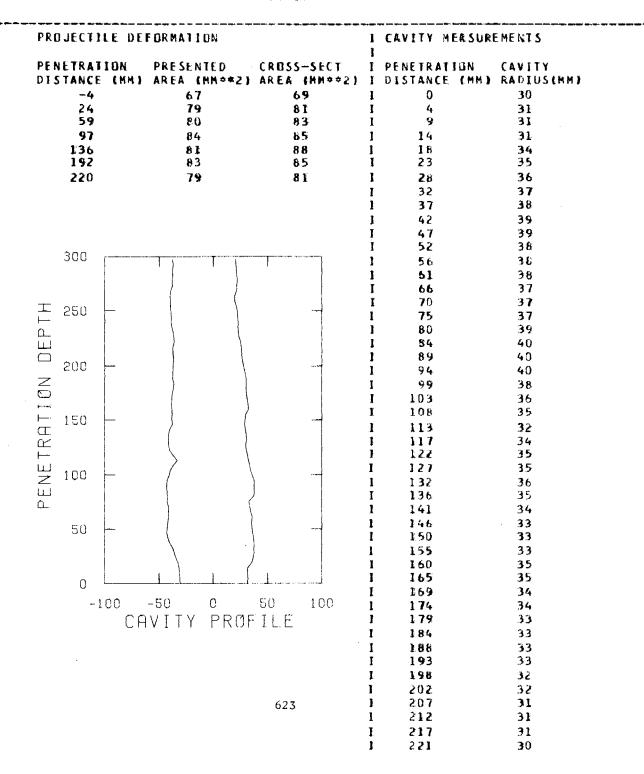
PROJECTILE TYPE -- SPEER JSP 44MAG PROJECTILE VELOCITY (MPS) -- 330.7%

PROJECTILE DE	ORMATION		I CAVITY MEASURE	MENTS
PENETRATION DISTANCE (MM) -3 23 53			I I PENETRATION I DISTANCE (MM.) I O I 4 I 9	CAVITY RADIUS(MM) 41 42 43
90 125 172 195	110 114 108 102	110 187 112 110	I 14 I 19 I 23 I 28 I 33 I 38	45 46 48 48 49
300 I 250	· · · · · · · · · · · · · · · · · · ·		I 43 I 48 I 52 I 57 I 62 I 66 I 71	49 48 49 49 49 48 49
00 S00 -			1 95 I 100	48 46 46 46 46
N 100			1 105 1 110 1 115 1 119 1 124 1 129	43 43 42 42 42 41 40
50 -			139 143 148 153 158 163	39 39 39 40 37 37
	-50 0 : VITY PROF	1 100 100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	182 187 191	38 38 37 37 37 37
,		621 I	201 206 210 215 220	36 36 36 35 34 33

# ROUND NUMBR 373 CONTINUED

ł	230	33
I	235	33
1	239	33
1	244	32
1	249	31
Ţ	254	28
ì	259	28
1	263	28
1	268	28
ì	273	27
1	278	26
j	283	26
I	267	26
I	2.85	25
I	297	24
1	302	23
ĭ	<b>3</b> 0 <b>7</b>	22
1	311	20
1	316	19
Ţ	321	17
T		

PROJECTILE TYPE -- SPEER, JSP, 44 PROJECTILE VELOCITY (MPS) -- 332.54



# ROUND NUMBER 376 CONTINUED

1	226	30
I	231	30
I	235	30
i	2.40	30
ĵ	245	30
I	249	30
1	254	30
I	259	29
J	264	29
1	268	30
1	273	29
1	278	30
3	282	29
1	287	29
Ī	292	28
I	297	23
1	301	28
ī	306	27
Ī	311	26
Ī	315	26
ī		2.0

ROUND NUMBER -- 378

PROJECTILE MASS (GM) --15.552

PROJECTILE TYPE -- SPEER, JSP, 44

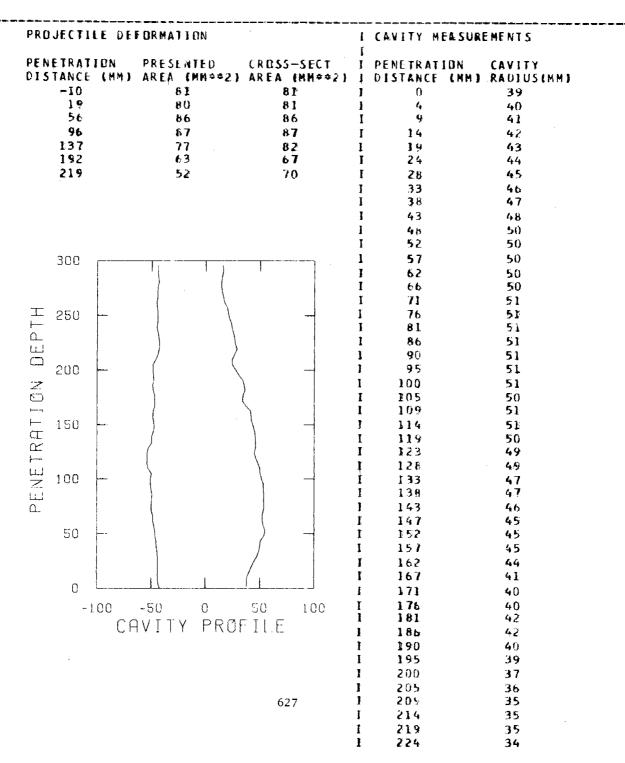
PROJECTILE VELOCITY (MPS) -345-64

PROJECTILE DEFORMATION			I CAVITY MEASURI	EMENTS
PENETRATION DISTANCE (MM) -5 27 60 100 139 194 222	PRESENTED AREA (MM⇒≥2) 78 71 83 76 86 79 59	CRBSS-SECT AREA (MM**2) 78 77 88 76 86 81	J PENETRATION 1 DISTANCE (MM) 1	31 32 33 35 38 40 42 42 43 44
300 PENETRATION DEPTH 50 -100 C	-50 O AVITY PRO	50 100 FILE	1 47 1 52 1 56 1 61 1 66 1 71 1 75 1 30 1 85 1 90 1 94 1 99 1 104 1 109 1 114 1 123 1 128 1 123 1 128 1 137 1 142 1 147 1 156 1 161 1 171 1 175 1 180 1 185 1 185 1 185	45 44 42 43 42 41 41 40 40 42 41 48 42 41 40 37 35 35 36 38 39 39 39
•		625	I 194 I 199 I 204 I 208 I 213 I 218 I 223	36 37 36 35 34 33

# ROUND NUMBER 378 CONTINUED

ſ	227	32
I	233	29
J	237	30
I	242	31
I	247	31
I	251	31
I	256	31
j	261	30
1	266	29
I	270	27
I	275	26
I	280	25
1	285	24
1	289	25
I	2.94	27
I	299	27
}	304	27
1	308	26
I	313	24
1	318	23
1	322	22

PROJECTILE TYPE -- SPEER, JSP, 44 PROJECTILE VELOCITY (MPS) -- 366.67



#### ROUND NUMBER 377 CONTINUED

1	228	34
j	233	34
I	238	34
1	243	33
]	241	32
Ţ	252	32
1	257	32
Ĭ	267	31
1	267	3.0
1	273	29
l	276	29
1 .	281	28
1	286	29
Ī	290	30
i	295	29
I	300	29
1	304	85
1	310	26
]	314	2.6
j	319	26
1.	324	56
ĭ	326	24
I	332	24
I		

ROUND NUMBER -- 449

PROJECTILE MASS (GH) ---15-552

PROJECTILE TYPE -- SPEER, JSP, 44MAG PROJECTILE VELOCITY (MPS) -- 370\_33

PROJECTILE DEFO	RMATION	<del>وحات ها داخت خان المساقة الم</del> ا	CAVETY HEASURE	MENTS
	RESENTED CRI REA 4MM++2) ARI 90	DSS-SECT   EA (MM*#2)   91	PENETRATION DISTABLE ANN) O	CAVITY RADIUS (MM) 32
24	140	140	6	35
55	147	147	11	38
86	181	184	18	41
116	156	163	24	45
1159	155	155	30	49
177	132	136	36	51
		1	42	52
		į	48	54
		i	54	53
5.5.5		ļ	60	54
300	/ / / T		66	54
			73	54
ļ	( \		78	53
王 250 -	}		84	53
			91	53
٥	/		97	51 50
			1 302 1 109	50 <b>49</b>
<sup>™</sup> 200 ⊢	1		134	48
	( .		121	48
200	/ >	i	127	47
<del></del>			133	46
<u>⊢</u> 150 −		-  i	139	44
	/	ļ	1 145	44
			I 151	40
¥ 100 - /		ļ I	1 157	39
*	\	1	163	<b>3</b> 7
다 C			169	35
<u> </u>		1	175	34
50			181	29
			187	29
	. /		193 1 199	26 25
	`\ , /,		205	26
0 L			115	24
-100 -5	0 0 50	100 i	218	24
CAV		£ 100		22
EMV.	ITY PROFIL		230	21
	•	j	236	20
		i	242	18
		i	248	17
		1	253	17
		i	259	13
	6	29	26 <u>6</u>	14
	·		2.72	14
		1	278	11
		j	284	12

#### ROUND NUMBER 449 CONTINUED

1	2.90		12
ľ	296	. %.	11
1	302		11
I	308		11
1	314		10
1	320		8

1.1

ROUND NUMBER -- 36 370

PROJECTILE MASS 4GM1 -- 15.552

PROJECTILE TYPE -- SPEER, JSP, 44MAG

PROJECTILE VELOCITY (MPS) -- 375.82

PROJECTILE DE	FORMATION	الله الله الله الله الله الله الله الله	I CAVITY MEASURI	EMENTS
PENETRATION DISTANCE (MM) -3 23 56 68 117 152 169	PRESENTED AREA (MM++2) 341 194 290 205 241 220 222	141 195 320 208 241 220	PENETRATION DISTANCE (MM)  0 6 11 17 24 29 36	37 41 45 50 54 57
		222	36 41 48 53 60 66 72 76 84 89 96 101 107 113 119 125 131 137 143 149 155 161 167 173 179 185 191	60 63 64 65 66 66 66 67 67 67 66 65 66 67 67 67 67 67 67 67 67 67 67 67 67
	-50 0 RVITY PROF		221 227 233 239 245 251 257 263 269	29 28 24 22 21 20 19 18 17

ROUND	NUMBER	370	CONTINUED	
				1 1
				1

1	2.87	14	
ľ	292	12	
1	298	12	
1	304	11	
1	310	10	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1	316	,9	

W. Carlotte

PROJECTILE TYPE --- SPEER, JSP, 44 MAG PROJECTILE VELOCITY (MPS) --- 389-84

			I CAVITY MEASUREMENTS	
DISTANCE CHAI	AREA (MM##2)	ROSS-SECT   REA (MH++2)	DESTANCE SHEET	
<b>+</b> -5	87 <del>9</del> 5		I 0 I 5	33 37
21 54	95 145		; 5 1 11	41
88	199		1 )B	44
115	237	270	24	48
155	265		30	52
169	215		36	55
			42	58
		1	48	60
		1	I 54	61
		1	E 60	62
300 (			1 66	62
	1 1		1 72	62
			78	61
-			I 84	61
<u>∓</u> 250 ⊢		→ ;	1 90	60 59
T 250 -			I 95 I 102	59
			I 102 I 108	58
200	/ \		1 114	57
			120	56
N O		1 1	1 126	53
homany			1 132	53
⊢ 150 ⊢	)		1 137	50
Œ	<i></i>		1 143	49
<u>~</u>	)		1 150	47
		1	1 156	45
N 100	1	1	162	43
			1 168	41
α_ /		, ,	174	39
50 - \			1 180	38
30 [ (	\	/ -	l 186 l 192	37 35
			I 198	34
			1 204	30
0			1 210	27
-100 -	-50 0	50 100	1 215	24
			I 555	24
CH.	VITY PROF	1 l. E	I 228	23
		•	1 234	19
			I 240	18
i			1 246	16
			1 252	15
			258	13
			I 264	13
			270	12
			I 276	10 10
			I 28I	IU

# ROUND NUMBER 450 CONTINUED

I	288	14
Ī	293	10
1	300	10
I	306	9
1	31 k	9
1	317	. 9
1	323	8

PROJECTILE TYPE -- SPEER, JSP, 44

PROJECTILE VELOCITY (MPS) --- 397-46

	I CAVITY MEASUREMENTS
PENETRATION PRESENTED CROSS-SECT DISTANCE (MM) AREA (MM##2) AREA (MM##2) -2 84 84 29 110 110 65 113 114 102 110 115 124	I 0 32 I 4 33 I 9 36 I 14 42 I 19 47 I 24 51 I 28 54 I 33 58
DED THE SECOND CAVITY PROFILE	1       38       60         1       43       62         1       47       63         1       52       64         1       57       64         1       62       65         1       67       65         1       76       65         1       76       65         1       81       65         1       86       64         1       90       63         1       95       62         1       100       62         1       109       61         1       114       60         1       119       59         1       128       55         1       128       55         1       133       53         1       138       52         1       148       51         1       152       52         1       148       51         1       162       51         1       167       48         1       176       46         1       186       39
635	I 196 40 I 200 40 I 205 39 I 209 39 I 214 40 I 219 38 I 224 36

# ROUND NUMBER 380 CONTINUED

I	229	35
1	233	33
I	238	33
1	243	- 34
1	248	33
I	252	- 32
I	257	30
I	262	29
1	267	28
1	272	27
Ĭ	276	26
Ì	281	26
1	286	25
I	291	24
1	296	24
Ĭ	<b>30</b> 0	24
I	305	23
I	310	21
ŀ	314	18
1	319	19
1	324	19

ROUND NUMBER +- 383

PROJECTILE ASS (GM) --15.552

PROJECTILE TYPE -- SPEER, SWC, 44 PROJECTILE VELOCITY (MPS) -- 265-79

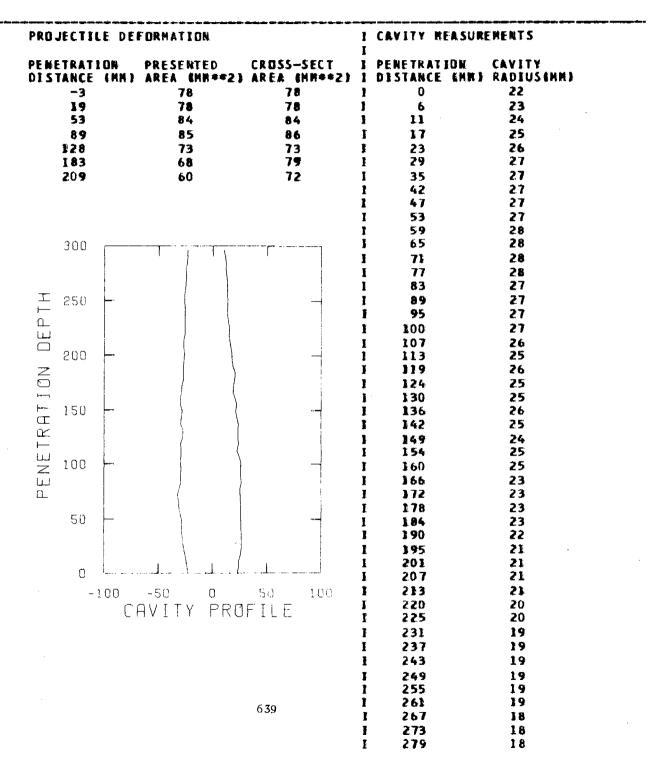
PENETRATION (DISTANCE (MM) (P) 13 40 73 107 157 182	PRESENTED AREA (MM##2) 75 82 88 75 81 81	AREA (MM**2) 75 82 88 76 81 81	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 18 I 23 I 28 I 37 I 42	19 18 18 19 20 20 19 19
300			I 42	19
	1 1	ĺ	I 47 I 51 I 56 I 61 I 65	19 20 20 19 20
± 250 − 0. 1.1.			I 70 I 75 I 80 I 85	20 21 20 19
200 - ND 1 150 -			I 89 I 94 I 99 I 105 I 108	19 19 20 19
T 100 –			I 113 I 117 I 122 I 127 I 132	20 19 20 20 20
<u>0</u> .		j	I 136 I 141 I 146 I 151	18 18 18 18
	-50 0	50 100	1 155 1 160 1 165 1 170 1 174	19 19 18 18
CA	IVITY PRØ	FILE	I 179 I 184 I 186 I 193	18 17 18 18
		637	I 198 I 203 I 207 I 212 I 217	18 16 17 17 17

## ROUND NUMBER 383 CONTINUED

226	17
231	17
236	17
241	17
245	16
250	17
255	16
259	15
264	15
269	15
274	15
278	15
2.83	15
288	15
2.93	14
297	14
302	14
	13
311	13
316	13
320	12
	231 236 241 245 250 255 259 264 269 274 278 288 293 297 306 311 316

PROJECTILE TYPE -- SPEER . SWC. 44 MAG

PROJECTILE VELOCITY (MPS) --- 306-63

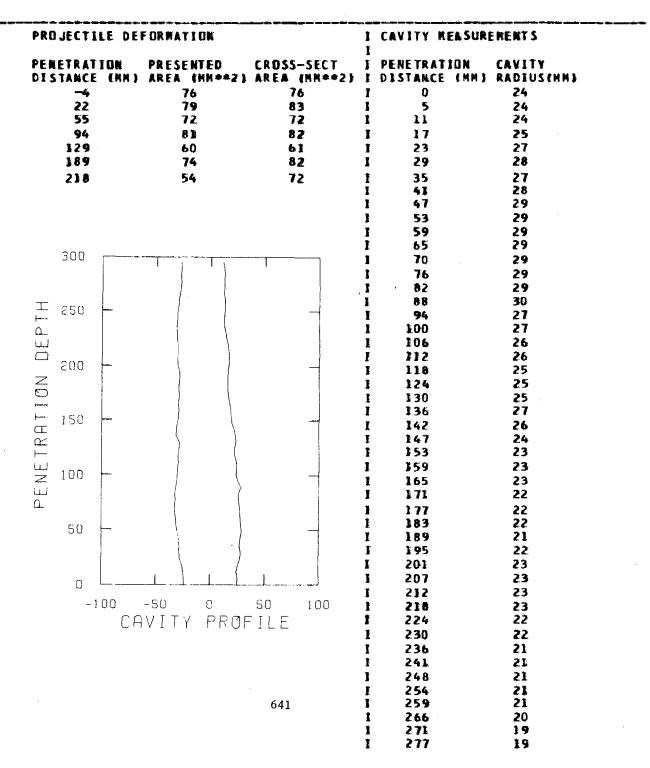


## ROUND NUMBER 455 CONTINUED

1	284	17
1	290	17
ĭ	296	16
1	302	16
Ī		

PROJECTILE TYPE -- SPEER, SWC, 44 MAG

PROJECTILE VELOCITY (MPS) -- 321.56



## ROUND NUBER 456 CONTINUED

Ī	283	20
1	289	19
1	294	18
I	301	18
ł	307	18
1	312	17

PROJECTILE TYPE -- SPEER, SWC, 44 PROJECTILE VELOCITY (MPS) -- 348.39

PROJECTILE DEFORMATION				I CAVITY MEASUREMENTS					
		121 126 136 170 197 288			PENETRATION DISTANCE (MM) O H H H H H H H H H H H H H H H H H H	28 28 30 33 35 35 36 36			
		300					1 42 1 47 1 52 1 56 1 61 1 66	37 39 38 38 38 38 38	
	DEPTH	250 200					1 75 1 80 1 85 1 90 1 95 1 99	39 39 38 37 36	
	ENETRATION	150				1	1 104 1 103 1 113 1 118 1 123	37 38 38 37 37	
	PENE	180 50					1 128 1 132 1 137 1 142 1 147 1 151	36 37 38 38 38 37	
		0 -		50 0	50 8E I E	1.00	I 156 I 161 I 265 I 170 I 175 I 180	36 35 36 36 36 36	
			CHV	ITY PR	OII.L	643	1 185 I 189 1 194 I 199 I 203 I 208 I 213 I 216 I 222	36 35 35 34 34 34 34 34	

## ROUND NUMBER 382 CONTINUED

I	227	32
1	232	32
I	237	31
I	242	31
1	246	30
I	251	29
1	256	29
1	560	27
I	265	25
Ţ	270	24
1	275	23
I	279	24
Ī	284	25
1	289	2.6
1	294	25
j.	298	25
1	303	23
ŀ	308	22
1	315	21

PROJECTILE TYPE -- SPEER, SWC,44 PROJECTILE VELOCITY (MPS) -- 379.17

PENETRATION OISTANCE (RM) AREA (RMP==2)   1 PENETRATION CAVITY ROTUS(RM)   36	PROJECTILE DE	FORMATION	1 CAVITY MEASUREMENTS		
149 207 1 4 35  97 268 287 1 7 38  130 306 315 1 14 40  166 263 269 1 18 41  214 284 303 1 24 43  236 268 267 1 26 44  236 44  237 1 48 48  1 52 48  1 57 48  1 662 48  1 57 48  1 67 49  1 67 49  1 72 49  1 67 49  1 72 49  1 75 49  1 100 51  1 100 52  1 110 52  1 110 52  1 110 52  1 110 52  1 110 52  1 110 52  1 110 52  1 110 52  1 120 52  1 139 52  1 148 50  1 153 49  1 164 52  1 191 45  1 196 45  1 206 63  1 206 63  1 206 63  1 206 63  1 206 63  1 206 63  1 206 63  1 206 63  1 206 63  1 206 63	DISTANCE EMB	AREA (MM+#2)	AREA (MM+2)	I DISTANCE (MM)	RADIUSENMI
130 306 315 1 14 40 166 263 269 1 18 41 214 284 303 1 24 43 236 268 287 1 28 44  1 33 46 1 33 46 1 33 46 1 34 47 1 48 48 1 57 48 1 662 48 1 57 48 1 662 48 1 57 48 1 662 48 1 57 48 1 662 48 1 57 48 1 662 48 1 57 51 1 100 51 1 105 52 1 110 52 1 115 52 1 120 52 1 120 52 1 124 53 1 129 52 1 124 53 1 129 52 1 124 53 1 143 52 1 143 52 1 144 52 1 148 50 1 153 49 1 168	64	149	207	1 4	35
166 263 269   188 41				_	
214					
236 268 287   268 44					
1					
1			•		
1				=	
1   52   48   48   48   49   49   49   49   49					
H 250  H 250  I 67  I 72  I 76  I 91  I 100  I 100  I 100  I 100  I 100  I 100  I 115  I 124  I 139  I 139  I 139  I 139  I 139  I 139  I 139  I 139  I 139  I 139  I 139  I 139  I 139  I 139  I 139  I 139  I 139  I 139  I 153  I 148  I 168  I 168  I 177  I 163  I 191  I 165  I 191  I 196	2.5				
H 250  1 72 49  1 76 49  1 86 50  1 95 51  1 100 51  1 105 52  1 115 52  1 115 52  1 124 53  1 129 52  1 134 52  1 134 52  1 139 52  1 134 52  1 153 49  1 158 49  1 158 49  1 158 49  1 158 49  1 158 49  1 158 49  1 158 49  1 158 49  1 168 49  1 177 48  CAVITY PROFILE  1 187 45  1 196 45  1 206 43  1 211 41  1 220 40	300	T - 7	T		
H 250  1 76  49  1 86  50  1 91  1 100  51  1 100  51  1 115  52  1 115  52  1 129  52  1 129  52  1 139  52  1 139  52  1 143  52  1 143  52  1 143  52  1 158  49  1 163  49  1 158  49  1 163  49  1 158  49  1 163  49  1 163  49  1 163  49  1 172  48  CAVITY PROFILE  1 187  45  1 191  45  1 196  45  1 206  43  1 201  44  1 206  43  1 211  41  1 220  40					
1					
1 86 50 1 91 51 1 100 51 1 105 52 1 110 52 1 115 52 1 124 53 1 124 53 1 124 53 1 124 53 1 124 53 1 124 53 1 124 53 1 125 52 1 143 52 1 143 52 1 158 49 1 163 49 1 163 49 1 163 49 1 163 49 1 163 49 1 168 49 1 168 49 1 168 49 1 168 49 1 169 45 1 191 45 1 196 45 1 206 43 1 215 41 1 220 40	<u> ∓</u> 250 ⊢	/	} →		
1   95   51   100   51   100   51   105   52   1   115   52   1   124   53   1   124   52   1   124   1   125   1   168   49   1   158   49   1   158   49   1   158   49   1   168   1   168		/			
1   100   51   100   52   1   110   52   1   110   52   1   120   52   1   124   53   1   129   52   1   134   52   1   134   52   1   143   52   1   143   52   1   158   49   1   168   45   1   196   100   1   100   1   100   1   100   1   1	لتا	(			
1 100   51   105   52   100   115   52   115   52   124   53   124   53   124   53   124   53   124   53   124   52   134   52   134   52   134   52   134   52   134   52   134   52   134   52   134   52   135   49   136   49   1	200				
150		}			
150	0	(			
HE NOTE TO SECULATE TO SECULATE THE SECULATION OF SECULATI					
1 124 53 1 129 52 1 134 52 1 139 52 1 143 52 1 158 49 1 158 49 1 163 49 1 168 49 1 168 49 1 177 48 CAVITY PROFILE 1 187 45 1 191 45 1 196 45 1 206 43 1 211 41 1 220 40	T 180		\ 7		
1 129 52 1 134 52 1 139 52 1 143 52 1 153 49 1 158 49 1 168 49 1 168 49 1 168 49 1 187 45 1 191 45 1 196 45 1 206 43 1 211 41	<u>oc</u>				
I 139 52  1 143 52  1 148 50  1 158 49  1 158 49  1 168 49  1 168 49  1 172 48  CAVITY PROFILE  I 187 45  I 191 45  I 196 45  I 206 43  I 211 41  I 220 40					
I 139 52  1 143 52  1 148 50  1 158 49  1 158 49  1 168 49  1 168 49  1 172 48  CAVITY PROFILE  I 187 45  I 191 45  I 196 45  I 206 43  I 211 41  I 220 40	E 100				
1 148 50 1 153 49 1 158 49 1 163 49 1 168 49 1 188 49 1 188 49 1 191 48 1 191 45 1 196 45 1 201 44 1 206 43 1 211 41 1 220 40	اللفا	}			
I 153 49 I 158 49 I 163 49 I 168 49 I 168 49 I 172 48 CAVITY PROFILE I 187 45 I 191 45 I 196 45 I 201 44 I 206 43 I 211 41 I 220 40	<u> </u>				
I 153 49 I 163 49 I 163 49 I 168 49 I 168 49 I 172 48 CAVITY PROFILE I 187 45 I 191 45 I 196 45 I 201 44 I 206 43 I 211 41 I 220 40	50 -	(	1 -		
I 163 49 I 168 49 I 168 49 I 172 48 I 177 48 CAVITY PROFILE I 182 47 I 191 45 I 196 45 I 201 44 I 206 43 I 211 41 I 220 40					
I 168 49  -100 -50 0 50 100 I 177 48  CAVITY PROFILE I 182 47  I 191 45  I 196 45  I 201 44  I 206 43  I 211 41  645 I 215 41  I 220 40					
-100 -50 0 50 100 1 177 48  CAVITY PROFILE 1 182 47  1 187 45  1 191 45  1 196 45  1 201 44  1 206 43  1 211 41  645 1 215 41  1 220 40					
CAVITY PROFILE 1 182 47 1 187 45 1 191 45 1 196 45 1 201 44 1 206 43 1 211 41 645 1 215 41 1 220 40		E0 0	EU LOO		
1 187 45 1 191 45 1 196 45 1 201 44 1 206 43 1 211 41 645 1 215 41 1 220 40					
1 191 45 1 196 45 1 201 44 1 206 43 1 211 41 645 1 215 41 1 220 40		HVIIY PRU	of ILE		
I 196 45 I 20I 44 I 206 43 I 211 41 645 I 215 41 I 220 40					
1 201 44 1 206 43 1 211 41 645 1 215 41 1 220 40					45
645 I 211 41 I 215 41 I 220 40				1 201	
645 1 215 41 1 220 40					
I 220 40			645		
I 225 40					

#### ROUND NUMBER 38% CONTINUED

Ì	230	39
I	235	36
1	240	36
j	244	35
1	249	35
I	254	33
I	259	32
i	263	32
1	268	31
Ţ	273	30
I	278	30
1	282	29
Ţ	287	29
I	292	28
I	297	28
1	302	27
1	306	27
I	312	25
1	316	24
1	321	22
1	326	22

ROUND NUMBER -- 34 454 PROJECTILE MASS (GN ) -- 15 .552

PROJECTILE TYPE -- SPEER, SWC, 44MAG PROJECTILE VELOCITY (MPS) -- 410.57

PRI	DJECTILE	DEFORMATION	1 CAVITY MEASUREMENTS		
	KETRATIDI STANCE & -2 29 67 108 151 213 243		CRDSS-SECT AREA (MM**2) 83 77 86 90 79 85 75	I PENETRATION I DISTANCE (MM) I O 6 I 32 I 18 I 24 I 30 I 36 I 42 I 48	CAVITY RADIUS(NH) 26 27 30 34 37 38 38 39
	300			I 54 I 60 I 66 I 72 I 78	40 39 39 39 39
PTH	250			I 84 I 90 I 96 I 102	37 37 37 37 35
ON DE	200		_	I 108 I 114 I 120 I 126	35 35 34 34
1-1-1	150			I 132 I 138 I 144 I 150	33 33 33 31
PENETRAT	100			I 156 I 162 I 168 I 174	32 30 31 30
	50			I 180 I 186 I 192 I 198 I 204	29 29 29 28 28
	-100 -100		FILE	Î 210 1 216 1 222 1 228 1 234	29 28 28 27 26
			647	1 240 1 246 1 252 1 258 1 264 1 270 1 276 1 282	27 27 27 26 26 27 27

## ROUND NUMBER 454 CONTINUED

1	288	27
I	294	27
Ī	300	27
I	306	25
1	312	25
Ť		

ROUND NUMBER -- 522

PROJECTILE MASS (GM) --12.960

PROJECTILE TYPE -- SPEER, JHP, 45CAL PROJECTILE VELOCITY (MPS) -- 188.98

PROJEC	TILE DE	FORMATION	· <del></del>	I CAVITY MEA	SUREMENTS
-1	CE (MM) 5. 0 1 1 5 9	PRESENTED AREA (MM + *2) 80 91 98 88 81 91	CROSS-SECT AREA (MM**2) 83 91 98 93 92 102 129	I 0 I 6 I 12 I 18 I 23 I 30 I 35 I 41 I 48	MM1 RADIUS(MM)  11 13 15 15 16 17 17 17
300	<u></u>			I 53 I 59 I 65 I 72 I 78	17 16 15 15 14
王 250 L			_	1 83 1 89 1 95 1 101 1 107	14 14 15 16 17
MO 200			-	I 113 I 115 I 125 I 131	18 18 18 18
H 150				I 137 I 143 I 149 I 155 I 161	19 19 19 19 18
100 LNF P				I 167 I 173 I 179 I 185	18 18 17 16
	o		50 100	1 191 1 197 1 202 1 209 1 214	15 14 14 13 11
	-100 C	AVITY PRO		I 220 I 227 I 232 I 238	11 9 10 10
			649	I 244 I 250 I 256 I 262 I 266	12 12 11 10 9
				I 274 I 280	8 8

# ROUND NUMBER 522 CONTINUED

1	304	7
1	310	7
I	315	5
I	286	8
1	292	7
1	298	7

RUND NUMBER -- 521

PROJECTILE TYPE -- SPEER. JHP.45CAL PROJECTILE VELOCITY (MPS) -- 283.16

PROJECTILE	DEFORMATION	I CAVITY HEASL	JREMENTS	
PENETRATION DISTANCE (N -9 11 34 59 83 111 123	PRESENTED  M) AREA #MM**2]  93  342  298  246  301  270  276	CROSS-SECT AREA (MM##2) 93 342 298 247 303 274	I PENETRATION I DISTANCE (MM 1 0 5 1 12 1 18 1 23 1 30 1 35 1 42 1 47	CAVITY 1) RADIUS (MM) 18 20 24 28 33 36 39 40 41
300			1 53 1 60 1 66 1 71 1 77	43 45 45 43 42
H 250		-	1 16 1 89 1 96 1 101	41 39 38 36
10 NO 1		<u> </u>	1 107 I 113 I 119 I 125 I 131	35 33 31 28 27
ENE TRAT			1 137 1 143 1 149 1 155	26 25 22 19
Δ.			I 161 I 167 I 173 I 179	17 16 14 12
50			1 165 1 191 1 197 1 203 1 209	11 10 10 9 8
-100		50 100 FILE	1 215 1	5

PROJECTILE TYPE -- SPEER, JHP, 45CAL PROJECTILE VELOCITY (MPS) -- 319.43

PROJECTILE DE	FORMATION	CAVITY MEASUR	EMERTS		
PENETRATION DISTANCE (NH) -4 13 42 70 95 128 141	PRESENTED CI AREA (MM+#2) AI 134 331 314 168 150 292 283	RDSS-SECT I REA (MM**2) I 134 331 314 168 150 293 287	DISTANCE (MM)  0 6 11 17 24 29 36 41	28 31 36 40 43 48 50 53	
300		] ] ] ]	59 65 71 77	54 54 54 52 50	
王 250 —		- I	89 95 101 107	49 47 46 45 42	
NO 2000		1	318 125 130 136	40 39 37 35 34	
ENET RED		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	148 154 160 166	32 29 27 28 26	
50			178 184 190 196	27 27 25 23 21	
0 -100 Cf	-50 0 8 RVITY PROF	50 100 I	208 214 219 226	19 18 16 15	
		1 1 1 1	237 243 249	1 V 10 9 7	
		652			

ROUND NUMBER -- 519

PROJECTILE MASS (GM) --12-960

PROJECTILE TYPE -- SPEER, JHP,45CAL PROJECTILE VELOCITY (HPS) -- 374.29

PROJECTILE	DEFORMATION		I CAVITY HEASURI	EMENTS
PENETRATIO DISTANCE ( -4 19 50 77 102 133 145		AREA (MM*2) 159 442 158 189 207 201 198	PENETRATION  I PISTANCE (MM)  I 0  I 6  I 11  I 17  I 23  I 29  I 35  I 41	39 43 48 51 55 58 60 62
906			1 47 1 53 1 59 1 65 1 71	63 63 64 62 62 63
0N DEPTH 520 520		_	1 83 1 89 1 95 1 101 1 107 1 113 1 119	59 56 54 52 50 47 44
ENETRATIO			I 125 I 131 I 137 I 143 I 148 I 155 I 161	40 37 31 25 24 23 23
50			I 166 I 172 I 178 I 184 I 190 I 196	22 21 18 15 13
-10i	-50 O CAVITY PRO	50 100 FILE	I 202 I 208 I 214 I 220	9 8 8 6

ROUND NUMBER -- 538

PROJECTILE MASS (GR) --12-960

PROJECTILE TYPE -- SPEER, JHP, 45CAL PROJECTILE VELOCITY (MPS) -- 460-25

PROJECTILE DEFORMATION :	CAVITY HEASUREMENTS
PENETRATION PRESENTED CROSS-SECT I DISTANCE (NH) AREA (NM**2) AREA (RM**2) I -4.	DISTANCE EMM) RADIUS (MM)  0 58 6 64 12 69 18 72 24 75 31 73 36 79 43 81
300	55 82 61 82 67 81 73 81 79 79 86 78 92 75 98 73 104 70 110 68 116 63 122 59 129 54 135 48 141 44 147 40 154 36 159 33 165 31 172 28 178 25 184 23 190 20 196 19 202 16 209 13 215
CAVITY PROFILE	227 10 233 9 239 8

ROUND NUMBER -- 514

PROJECTILE MASS (GM) --14-580

PROJECTILE TYPE -- SPEER.JHP.45CAL PROJECTILE VELOCITY (MPS) -- 291.08

PROJECTILE DEFORMATION	I CAVITY MEASUREMENTS
DISTANCE (NH) AREA (MM**2) AREA (MM**2) -4 82 85 17 132 135 45 122 125 71 147 150 99 114 115	I PENETRATION CAVITY I DISTANCE (MM) RADIUS(MM) I 0 18 I 6 20 I 12 24 I 18 28 I 24 31 I 30 34 I 36 36 I 42 38 I 49 40 I 55 40
300 H 250 200 NBLLBU 150 200 CAVITY PROFILE	1       61       39         1       67       39         1       73       38         1       79       37         1       85       35         1       92       34         1       98       34         1       98       34         1       104       33         1       110       33         1       122       31         1       128       31         1       128       31         1       134       29         1       141       29         1       141       29         1       147       29         1       153       27         1       159       26         1       165       24         1       177       22         1       183       20         1       190       18         1       190       18         1       208       16         1       214       15         1       220       14         1       232       12
655	I 269 11 I 275 12 I 281 11 I 288 10

#### ROUND MUMBER 514 CONTINUED

I	294	9
I	300	9
1	306	9
1	312	9
I	318	8
1	324	7

PROJECTILE TYPE -- SPEER, JHP, 45CAL

PROJECTILE VELOCITY (MPS) -338.33

PROJECTILE DEFO	RMATION	<del></del>	I CAVITY MEASUR	EMENTS
	RESENTED (REA (MM **2) / 105   287   243   268   243   260	AREA (MM==2) 106 287 244 249 272 248 26]	PENETRATION: 1 DISTANCE ERH) 1 0 1 5 1 11 1 17 1 24 1 30 1 36 1 42	27 31 37 41 46 49 51
	50 0 VITY PROF	50 100	I 48 I 54 I 60 I 66 I 72 I 78 I 84 I 90 I 102 I 108 I 114 I 120 I 126 I 132 I 138 I 144 I 150 I 156 I 162 I 186 I 174 I 180 I 186 I 192 I 198 I 204 I 210 I 216 I 228 I 234	57 59 60 60 58 58 58 57 56 55 53 54 51 48 46 43 42 40 37 35 33 31 29 27 25 23 19 17 15 13
		:	240 1 246 1 252 1 258 1 264	8 9 8 7 7

ROUND NUMBER -- 512

PROJECTILE HASS (GM) --14.580

PROJECTILE TYPE --- SPEER, JHP, 45CAL

PROJECTILE VELOCITY (MPS) -371.25

PROJECTILE DEFORMATION		CAVITY HEASU	REMENTS
	290 ] 264 ] 258 ] 280 ]	DISTANCE (MM)  O  1	31 36 43 47 51 53 56 59 60
300 H 250 200 150 100 100 100 100 100 100 1	50 100 ILE	57 63 69 74 80 86 92 98 109 115 121 126 132 138 144 149 155 161 172 178 184 190 195 207 212 218 224 230 235	61 62 62 61 61 60 59 58 56 53 49 50 49 47 43 40 39 36 33 30 28 26 23 20 17 14 12
	658 I	247	8 8 2

ROUND NUMBER -- 511

PROJECTILE MASS (GM) --14.580

PROJECTILE TYPE -- SPEER, JHP, 45CAL PROJECTILE VELOCITY (MPS) -- 389.23

PROJECTILE DEFORMATION	I CAVITY MEASUREMENTS
PENETRATION PRESENTED CROSS-SECT DISTANCE (MM) AREA (MM**2) AREA (MM**2) -7 93 93 25 211 211 58 253 256 86 273 274 113 325 325 147 280 282 160 296 296	I 0 40 I 6 46 I 12 50 I 18 55 I 24 58 I 30 61 I 36 64 I 42 67
300   H 250	I       48       68         I       55       68         I       61       69         I       67       69         I       73       68         I       79       66         I       85       64         I       91       62         I       97       61         I       103       59         I       109       56         I       115       54         I       128       52         I       134       51         I       140       48         I       146       44         I       152       43         I       158       40         I       158       40         I       164       39         I       176       32         I       182       31         I       188       28         I       194       23         I       213       16         I       225       13         I       231       11         I       243       10
659	I 261 6 I

PROJECTILE TYPE -- SPEER, JHP, 45CAL PROJECTILE VELOCITY (MPS) -- 423.37

PROJECTILE DEFORMATION I	CAVITY MEASUREMENTS
PENETRATION PRESENTED CROSS-SECT I DISTANCE (MM) AREA (MM**2) AREA (MM**2) I 0 83 83 I	
<b>28</b> 310 310 I	5 46
62 357 363 I	11 51
90 381 391 I 118 372 380 I	17 57 23 63
152 337 338 I	29 67
166 293 293 I	35 69
I	41 70
Ţ	47 72
Į.	53 72 59 72
	65 73
300 <u> </u>	71 72
I	<b>7</b> 7 72
1	83 69
	89 68 95 65
□ 200	
i l	
出 / / ) r	113 58
200 [- ]	119 54
N 100 - I I I I I I I I I I I I I I I I I I	125 50
	130 46 136 42
F 150 - i	
	148 35
	154 32
	160 30
Z 100 - / I	166 31 172 29
	178 27
	184 27
50 <del> </del> (	190 25
I	196 22
	202 21 207 20
i	213 19
-100 -50 0 50 100 <mark>I</mark>	219 18
CAVITY PROFILE 1	225 17
CUALLE LIVOLICE I	231 15
† 1 T	237 14 243 13
İ	249 12
1	<b>25</b> 5 <b>11</b>
660	261 11
	267 9
·	273 5
•	

PROJECTILE TYPE -- SPEER, SWC.45CAL PROJECTILE VELOCITY (MPS) -- 313.33

PROJECTILE DEFORMATION			I CAVITY MEASUREMENTS		
	PENETRATION DISTANCE (HM -2 23 55 88 125 176 201	PRESENTED 92 97 88 90 95 92 67		PENETRATION	19 19 20 23 27 29 30
	300			I 48 I 54 I 60 I 66 I 72 I 78 I 84	31 32 31 31 31 29
DFPTH	250			I 90 I 96 I 102 I 108 I 114	27 28 29 28 26
	200 <u>—</u>			1 121 1 126 1 132 1 139	27 26 25 27
PENETRATION	150			I 145 I 151 I 157 I 163 I 169	26 24 25 24 23
PEN	50			1 175 I 181 I 187 I 193	23 23 23 21
	0			1 199 1 205 1 211 1 217	21 20 20 20
		-50 0 5 VITY PRØFI	LE	223 229 235 241 247	20 21 19 18 19
				253 259 266 272 277	20 21 20 20 19
				E 284	19

# ROUND NUMBER 517 CONTINUED

I	2 <del>9</del> 0	18
I	296	19
I	302	18
1	308	19
1	314	17
I	319	16

ROUND NUMBER -- 516

PROJECTILE HASS (GM) --12-960

PROJECTILE TYPE -- SPEER, SHC, 45CAL

PROJECTILE VELOCITY (MPS) -- 369-42

PROJECTILE DEFORMATION			I CAVITY MEASUREMENTS	
PENETRATION DISTANCE (MM -3 27 64 306 151 213	PRESENTED 94 90 104 91 74 93	AREA (MM**2) 94 90 104 93 80	I PENETRATION I DISTANCE (HM) I 0 I 5 I 11 I 18 I 24 I 30	CAVITY RADIUS (HM) 20 21 23 26 28 30
300	93	93	I 36 I 42 I 48 I 54 I 60 I 66 I 72 I 78	31 30 29 29 29 29 29
DEPTH 5200			1 84 1 90 1 96 1 103 1 109 1 115	27 26 27 27 27 28 28
180 - 180 -		_	I 127 I 133 I 139 I 145 I 151 I 157 I 163	26 26 24 24 24 25 25
N 100 - 50 -			I 169 I 175 I 181 I 187 I 193 I 199 I 205	26 25 24 24 24 25 25
-100 C	-50 0 AVITY PRØF	50 100 ILE	1 211 1 217 1 223 1 229 1 236 1 242 1 248	25 24 23 23 25 24
		663	I 254 I 260 I 266 I 272 I 278 I 284	23 22 23 23 22 22

# ROUND NUMBER 516 CONTINUED

I	2 <del>9</del> 0	22
1	296	21
I	302	21
I	308	21
1	314	20
7	320	19

PROJECTILE TYPE -- SPEER SWC,45CAL

PROJECTILE WASS (GM) --12.960

PROJECTILE VELOCITY (MPS) --454.15

PROJECTILE DEI	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 0 34 76 118 163 219 245	PRESENTED AREA EMM**2} 89 84 84 88 102 136 143	AREA (MM*#2) 89 87 94	I PENETRATION 1 DISTANCE CMM) 1	CAVITY RADIUS (MH) 32 35 38 41 43 44 46 48
300 DEPTH 250 S S S S S S S S S S S S S S S S S S S	-50 O	50 100 FILE	54   60   72   78   78   84   90   102   108   102   108   120   126   138   144   150   156   168   174   186   198 	48 48 48 47 46 43 45 44 44 41 40 40 40 40 40 40 40 40 40 40 40 40 40

## ROUND NUMBER 515 CONTINUED

I	28B	32
1	294	31
1	300	29
Ī	30 <b>7</b>	28
1	312	27
Ţ		

PROJECTILE TYPE -- SPEER. SWC.45CAL PROJECTILE VELOCITY (MPS) -345-95

PROJECTILE DEFORMATION			I CAVITY MEASUREMENTS	
PENETRATION DISTANCE (MM) -4 24 61 97 139 197 224	PRESENTED AREA (MM**2) 84 87 91 86 90 93	CRDSS-SECT AREA (MM**2) 84 89 91 86 91 93	I PENETRATION I DISTANCE (MM) I 0 I 6 I 12 I 18 I 24 I 30 I 36 I 42 I 48 I 54	19 21 23 26 28 31 33 32 32 32
300			I 60 I 66 I 72 I 78	34 34 32 33
王 250		1	1 84 I 90 I 97 I 102	32 32 33 33
200 – Z			1 108 1 114 1 121 1 127	31 31 30 29
150 - CE			I 132 I 139 I 145 I 151	31 29 29 30
PENETRATION			I 157 I 163 I 169 I 175	29 29 28 26
50			I 181 I 187 I 193 I 199	26 26 24 23
-100	-50 0 AVITY PRØ		I 205 I 211 I 217 I 223 I 229	23 24 24 23 25
( )	MATTI TIVO	16.6	I 235 I 242 I 247 I 253 I 259	24 22 23 21 23
		667	1 265 1 272 1 277 1 283	23 22 20 20

## ROUND NUMBER 526 CONTINUED

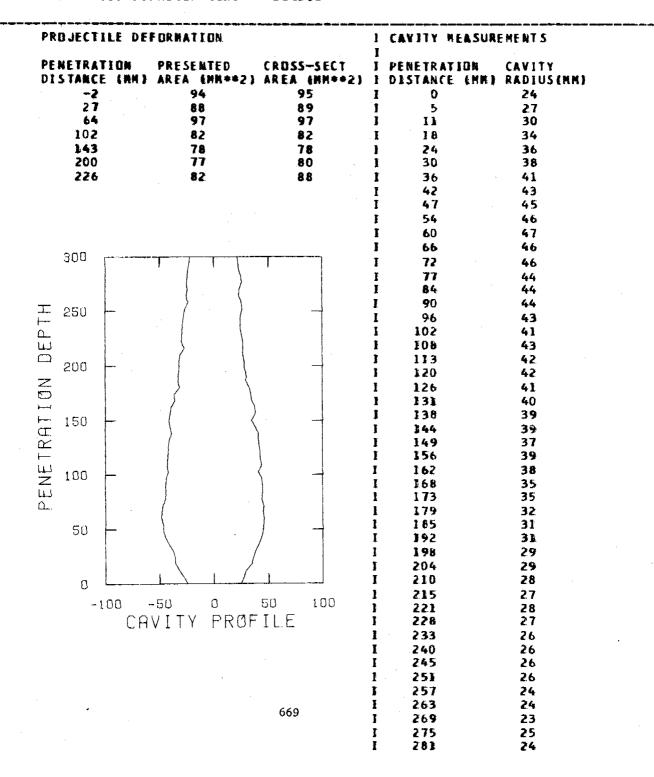
1	290	19
1	2.96	18
ī	302	19
Ĭ	307	18
1	314	17
1	320	16
I	326	17
t		

ROUND NUMBER -- 525

PROECTILE MASS (GM) -- 16.200

PROJECTILE TYPE -- SPEER. SWC. 45CAL

PROJECTILE VELOCITY (MPS) -- 373.08



## ROUND NUMBER 525 CONTINUED

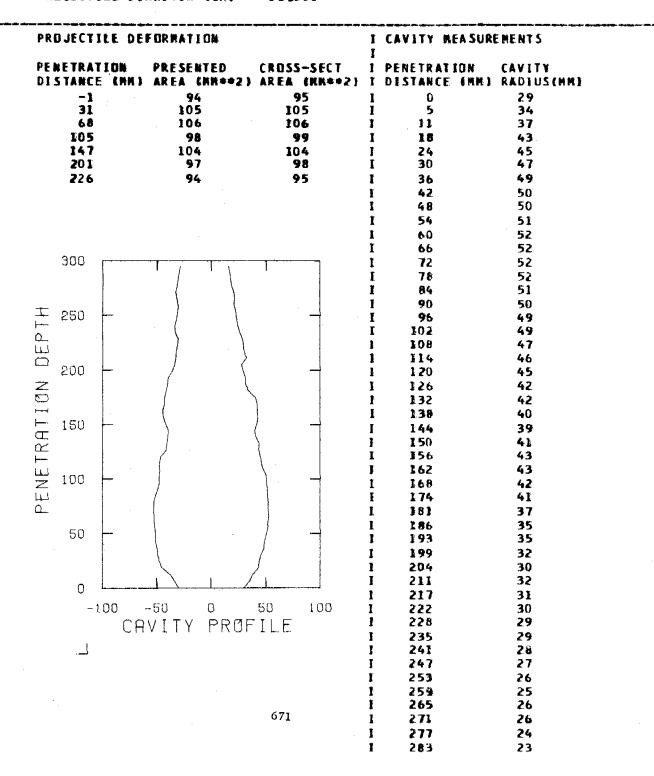
I	287	23
1.	293	22
I	299	21
ľ	305	2.0
1	311	20
Ī	317	20
Ī	323	. 18
•		

ROUND NUMBER -- 524

PROJECTILE HASS (GM) -- 16.200

PROJECTILE TYPE -- SPEER - SWC - 45CAL

PROJECTILE VELOCITY (MPS) -397.76



# ROUND NUMBER 524 CONTINUED

1	289	22
1.	295	21
Ī	301	21
I	307	2.0
I	312	19
T		

PROJECTILE TYPE -- SPEER, SWC,45CAL PROJECTILE VELOCITY (MPS) -- 422-15

PROJECTILE DEFORMATION I	CAVITY MEASUREMENTS
PENETRATION PRESENTED CROSS-SECT I DISTANCE (NR) AREA (RN+2) AREA (RN+2) I I I I I I I I I I I I I I I I I I I	DISTANCE (RR) RADIUS (NR)  0 40 6 42 12 48 13 54 24 58 39 62 36 65
300	61 69 67 68 73 68 79 68 85 68 91 67 97 67 103 65 110 64 116 62 122 61 128 59 134 58 140 57 146 54 152 54 158 53 165 52 171 51 177 50 183 48 189 46 195 44 201 43 208 41 214 39 220 40 226 40 232 40 238 38 244 35 250 33
673 1 1 1	262 30 269 30 275 27 281 26

## ROUND NUMBER 523 CONTINUED

ľ	293	25
1	299	24
I	305	23
I	311	2.0
I	317	19
1	323	16

PROJECTILE TYPE --- SUPERVEL, JHP, 385P PROJECTILE VELOCITY (RPS) -- 241.10

PROJ	ECTILE DE	FORMATION	I CAVITY REASUR	EHENTS	
D157	TRATION ANCE (NH) -10 9 33 59 86 125 142	PRESENTED AREA (MN++2) 42 50 63 46 48 47 48	CROSS-SECT AREA (MM++2) 42 51 63 47 48 49 53	I PEMETRATION I DISTANCE (MM) I 0 I 5 I 11 I 17 I 23 I 29 I 35 I 42 I 47 I 53	CAVITY RADIUS (MM) 10 11 13 15 17 19 19 19 19
3	300	7		1 60 1 66 1 71 1 77	18 17 16
<u>Г</u>	250			1 83 1 89 1 96 1 102	16 16 15 15
Œ	200			I 107 I 113 I 119 I 125	15 14 15 16
RAT1	50		_	I 131 I 138 I 143 I 149	16 16 16 15
PENET	.00			) 155 1 161 1 167 1 174	16 14 14 14
	50			1 179 I 185 I 191 I 198	14 13 13
	-100 CF	-50 0 AVITY PROF	ILE	1 203 1 209 1 215 1 221 1 227 1 233	11 12 11 11 11
. 5			675	I 239 I 245 I 251 I 257 I 264 I 269 I 275 I 281	10 9 7 7 7 7 7

## ROUND NUMBER 484 CONTINUED

Ī	287	6
1	293	. 6
I	299	6
1	30'5	6
Ī	311	5

PROJECTILE TYPE -- SUPERVEL, JHP, 385P PROJECTILE VELOCITY (MPS) -- 278.59

PROJECTILE D	EFORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM -8 11 39 65 91 128 143	PRESENTED  52 51 99 92 83 99 96	CROSS-SECT AREA (MM++2) 52 51	I PENETRATION I DISTANCE (MM) I 0 I 6 I 12 I 18 I 24 I 30 I 35 I 42	18 19 21 23 25 26 25 26
			I 48 I 54 I 60	26 24 23
300			1 66 1 72	21 21
	, , , , , , , , , , , , , , , , , , ,		78	21
王 250	} }	_	I 83 I 90	50 50
<u>+</u> 250 -			I 95 I 102	20 21
200			I 107 I 114	19
N			I 120 I 125	17 16
☐ 150 —			I 132 I 137	14
\times_\			I 143 I 150	11
100 H	/ /	_	I 156 I 162	12 12
BEI.		1	I 168 I 173	12 12
50			I 179 I 185	1 1 1 1
			I 191 I 197	9 8
, L			I 203 I 209	7 6
-100	-50 0	50 100	I 215 I 221	6 6
	AVITY PRØF	ILE .	1 227 1 233	5 5
			I 239 I 245	5 5
			I 251 I 257	5 4
			I 263 I 269	5 5
		677	1 275	3

ROUND NUMBER -- 482

PROJECTILE MASS (GM) -- 7-128

PROJECTILE TYPE -- SUPERVEL, JHP, 385P PROJECTILE VELOCITY (MPS) -- 301 -34

	PROJECTILE DE	FORMATION		I CAVITY MEA	SUREMENTS	<del></del>
	PERETRATION DISTANCE (MM)	PRESENTED AREA (MM=+2)		I I PENETRATIO! I DISTAMCE (!	N CAVITY	
	-7	54	54	1 0	16	
	15	58	58	1 5	18	
	42	98	99	1 11	20	
	69 96	70 73	75 77	1 17	22	
	F32	7.3 89	77 94	1 23 I 29	24 26	
	149	78	86	1 35	28	
	# · ·	••	•	1 41	28	
				1 47	30	
				I 53	29	
			482	I 59	29	
			•	I 65	29	
				I 71	29	
	200			I 77 I 83	28	
	300	T (1)		1 89	27 26	
		1		1 95	26	
			ľ	1 101	23	
=	⊏ 250 ⊢		→ `	107	21	4
			1	1113	19	
L	⊔	/ (		I 119	19	
	$\neg$	/ \		125	18	
_			-	1 131	17	
_		/ /		l 137 l 143	15	
<b>—</b>	<b>⊣</b>			I 148	16 16	
· ⊢	- 150 <b>-</b>		1	155	15	
	Ľ	) (		161	14	
<u>∐</u> }	150			166	14	
Ĺ		/		1.72	13	
2	₹ 100			178	14	
Г	_	/	1		13	
Ω	-	)		190	12	
	50			196	12	
		\		202 1 208	11 10	
				214	9	
				2.20	8	
	0		<b></b>	226	ž	
	-100 -:	50 O 5	50 100 <b>1</b>	232	7	
		ITY PROF		238	7	
	QJ I I V	111 1101	1 - 1 - 1	244	6	
			1	250	6	
			1		6	
			678	565	7	
			-	268	7	•
			1		7 6	
			J	E DU	e.	4

#### ROUND NUMBER 482 COMTINUED

ì	285	7
I	291	6
i	297	3

ROUND NUMBER -- 481

PROJECTILE MASS (GM) -- 7-128

PROJECTILE TYPE -- SUPERWEL, JHP, 38SP PROJECTILE WELDCITY (MPS) -- 350.52

PROJECTILE DE	FORMATION		I CAVITY HEASUR	REMENTS	<del></del>
PERETRATION DISTANCE (MM) -6 20 50 79 107 142 157	PRESENTED AREA (MM**2) 67 160 168 131 112 145	CRDSS-SECT AREA #MM++23 68 160 180 172 138 145 177	PENETRATION I PENETRATION I DISTANCE (MM) I 0 5 I 11 I 17 I 23 I 30 I 35 I 41 I 48	25 27 32 35 38 40 41 43	
300 PENETRATION DEPTH 500 1200 Ct	-50 0 IVITY PROF	50 100	1 54 1 60 1 72 1 78 1 84 1 90 1 102 1 108 1 126 1	44 43 40 38 37 35 30 28 27 28 27 28 27 28 27 28 27 28 27 28 27 28 27 28 27 28 27 28 27 28 27 28 27 28 27 28 27 28 27 28 27 28 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20	
·		680	1 240 1 246 1 252 1 258 1 264 1 270 1 276	8 7 6 5 5 5	

PROJECTILE TYPE -- SUPERVEL . JHP . 385P PROJECTILE VELOCITY (MPS) -- 378.56

PROJECTILE DE	FORMATION		CAVITY MEASURI	EMENTS
PERETRATION DISTANCE (RR) -2 24 54 82 109 139 153	· · · · · · · · · · · · · · · · · · ·	72 163 179 147 170 163 164	DISTANCE (RM)  0 6 1 12 1 18 1 24 30 1 36	CAVITY RADIUS(MM) 31 34 39 44 47 50 52 54
300			66 73 78 85	54 54 52 50 48 44
250 L 200 L			97 1 103 1 109 1 115 1 121	42 38 37 39 39 36 35
150 L 150 L 150 L			1 139 1 145 1 151 1 158 1 163 1 170	32 31 30 29 25 24
50			1 188 1 194 1 200 1 206 1 212	19 17 16 14 13 12
	-50 0 50 VITY PRØFIL	- E		9 8 7 6

PROJECTILE TYPE -- SUPERVEL, JHP, 38SP PROJECTILE VELOCITY (MPS) -- 418-19

PI	ROJEC	TILE DE	FORMATION	· · · · · · · · · · · · · · · · · · ·		CAVITY HEASUR	EMENTS	<del></del>
	ESTAN	0 8 1 1 0 4	PRESENTED AREA 4MM++21 101 224 112 108 124 131 95	CROSS-SECT AREA (MM**2 101 226 112 108 124 131 95	1 1 1 1 1 1 1 1	DISTANCE (MM)  0  6 12	CAVITY RADIUS (HM) 35 40 45 49 53 56 57	
	300				I 1 1 1 1	48 54 60 66 72 78	59 60 60 59 59 57	
)EPTH	250	_		_	I I I	91 96 103 109	56 54 53 51 49	
ATION D	200				I I I I	121 127 133 139	45 40 36 35 32	
ENETRA	100	- /			1	157 163 169	31 29 26 23 22	
ď	50		,		I 1 1 1	181 187 193 199	20 20 18 18 17	
	0 -		so o VITY PROF	50 100 ILE .	! ! !	223 229	16 14 13 12 11 8	
					I	242 248 253 260	7 6 6 5	
	•			682	I		6	

PROJECTILE TYPE -- SUPERVEL.JSP.38SP PROJECTILE VELOCITY (MPS) -244.75

PROJECTILE DE	FORMATION	<u>ست سيد ماه بعث ست شيد پشارانان کا کا کا کا کا کا کا کا</u>	1 CAVITY HEASUR	EMERTS	<del></del>
PENETRATION DISTANCE (NM) -9 12 37 64 93 133	PRESENTED AREA (MR**2) 43 49 48 51 57 49 47	AREA (NH++2) 43	I PENETRATION I DISTANCE (MM) I 0 5 I 12 I 17 I 23 I 30 I 36 I 42 I 48 I 54	CAVITY RADIUS (MM) 17 18 18 19 19 20 19 19 18	
300			I 60 I 66 I 72 I 78	17 17 16 16	
王 250 L			1 84 1 90 1 96 1 102	16 14 13 14	
0 200 -		_	1 108 1 114 1 120 1 126	13 12 12 13	
·			I 132 F 138 I 144 I 150	12 12 12 12	
PENETRA 100 -			I 156 I 162 I 168 I 174	12 12 12 12	
50			I 180 I 186 I 192 I 198	12 12 11 11	
-100 CF	-50 0 AVITY PROP	FILE	I 204 I 210 I 216 I 222 I 228 I 234 I 240 I 246 I 252 I 258 I 264	10 10 8 8 8 7 7 7 7 7	
			1 270 1 277 1 282	7 7 7	

## ROUND NUMBER 478 CONTINUED

Ī	288	7
Ĭ	294	7
1	300	6
1	306	6
1	312	6
I	318	5

ROUND NUMBER -- 477

PROJECTILE HASS (6H) -- 7.128

PROJECTILE TYPE -- SUPERVEL , JSP , 38SP PROJECTILE WELDCITY (MPS) -- 274 . 32

PROJECTILE DIAMETER (CM) -- 9.068

PROJECTILE D	EFORMATION	<del></del>	I CAVITY HEASUREMENTS	<del></del>
PERETRATION DISTANCE CHN -8 14 46 75 105 152 173	PRESENTED  AREA (MM**2)  46 50 52 47 38 304		I PENETRATION CAVITY I DESTANCE (MM) RADIUS(MM) I 0 17 I 6 17 I 12 18 I 17 19 I 24 20 I 30 21 I 36 21 I 42 20	
300			1 48 19 1 54 19 1 60 19 1 66 19 1 72 18 1 78 18	
± 250 −			1 84 17 1 90 17 1 96 17 1 102 16	
200 DE			I 108 15 I 114 15 I 120 16 I 126 16	
150 - C		_	1 132 16 1 138 15 1 144 15 1 150 15	
PENETRATION 100 -		-	I I56 I6 I 162 I6 I 168 I5 I 174 I5	
50	. (		1 180 15 I 186 15 I 192 15 I 198 15	
-100 C	-50 0 AVITY PROF		E 204 16 E 211 16 E 216 16 E 222 16 E 228 15	
		] ] ]	234 14 240 14 246 13 252 12 258 12	
		685 1 1	265 11 271 11 277 9	

### ROUMD MUMBER 477 CONTINUED

1	289	9
I	295	8
1	301	8
1	307	8
1	313	8
1	319	7

ROUND NUMBER -- 476

PROJECTILE MASS (GM) -- 7-128

PROJECTILE TYPE -- SUPERVEL, JSP, 38SP PROJECTILE VELOCITY (MPS) -- 299.31

PROJECTILE DIARETER (CH) -- 9.068

-5 41 42 46 1 0 20 17 42 46 1 1 12 24 81 47 48 1 17 26 111 55 55 5 7 23 27 157 49 53 1 29 27 176 34 36 1 35 27 176 34 36 1 35 27 177 26 1 41 41 27 1 47 26 1 53 25 1 65 24 1 65 24 1 77 26 1 183 24 1 89 23 1 107 23 1 107 23 1 113 22 1 101 22 1 1 101 22 1 1 101 22 1 1 102 22 1 1 103 22 1 1 104 1 1 109 21 1 143 18 1 149 18 1 155 18 1 184 15 1 197 14 1 202 13 1 197 14 1 208 12 1 208 12 1 214 11 1 227 13	r <del>1778 - 178</del> - 178 - 1	CAVITY MEASUREMENTS		FORMATION	TILE DEI	RDJECT	PR
300  300  1 53 25 1 65 24 1 65 24 1 77 24 1 83 24 1 89 23 1 101 22 1 101 22 1 101 22 1 113 22 1 119 21 1 125 21 1 137 20 1 149 18 1 149 18 1 149 18 1 149 18 1 149 18 1 155 18 1 166 15 1 173 15 1 179 15 1 184 15 1 197 14 1 202 13 1 191 14 1 197 14 1 202 13 1 191 14 1 197 14 1 202 13 1 208 12	IK)	DISTANCE CHM1 RADIUS CHM   0 20   5 21   12 24   17 26   23 27   29 27   35 27	AREA (MM++2) 42 46 43 48 55 53	AREA 4M**21 41 42 41 47 55 49	CE (MM) 5 7 0 1 1	15TANC -5 17 50 81 111 157	
I		53 25 1 59 25 1 65 24 1 71 24		1		300	
200 -		1 83 24 1 89 23 1 95 22 1 101 22	_		_	_	℩
150		113 22 1 119 21 1 125 21				200	O NO
50 - I 184 15 1 191 14 1 197 14 1 202 13 1 208 12 -100 -50 0 50 100 1 220 12 CAVITY PROFILE 1 227 13		1 137 20 1 143 18 1 149 18 1 155 18			_	_	
1 197 14 1 202 13 1 208 12 -100 -50 0 50 100 1 220 12 CAVITY PROFILE 1 227 13		166 15 173 15 1 179 15 1 184 15					PENE
-100 -50 0 50 100 1 220 12 CAVITY PROFILE 1 227 13		197 14 202 13 208 12					
I 232 13 1 238 12		220 12 227 13 232 13 238 12	ILE				
1 244 11 1 250 10 1 256 10 687 1 262 9 1 268 9		250 10 256 10 262 9	687				

### ROUND MUMBER 476 CONTINUED

I	286	8
1	292	8
1	298	7
1	304	7
1	309	4
Ŧ	<del>-</del>	

ROUND NUMBER -- 471

PROJECTILE MASS (GR) -- 7.128

PROJECTILE TYPE -- SUPERVEL, JSP, 38SP PROJECTILE VELOCITY (MPS) -- 346.25

PROJECTILE DIAMETER (CM) -- 9.048

PENETRATION PRESENTED CROSS-SECT I PENETRATION CAVITY DISTANCE (NM) AREA (NM=2) AREA (NM=2) I DISTANCE (NM) RADIUS (NM)  -3	PR	GJECTILE DI	FORMATION		I CAVITY MEASUR	EMENTS	· · · · · · · · · · · · · · · · · · ·
93		STANCE (RM) -3 26	FAREA (MM+#2) 54 65	AREA (WH==2) 55 65	DISTANCE (RM) O C C C C C C C C C C C C C C C C C C	RADIUS (MM) 23 24	
129 69 70 I 24 29 178 70 79 I 29 31 202 69 70 I 35 32 1 41 31 I 47 29 I 53 29 I 59 30 I 65 31 I 71 31 I 77 28 I 89 28 I 95 28 I 101 27 I 101 27 I 107 26 I 113 26 I 125 24 I 125 24 I 125 24							
202 69 70 1 35 32 1 41 31 1 47 29 1 53 29 1 59 30 1 65 31 1 71 31 1 77 28 1 83 27 1 89 28 1 95 28 1 101 27 1 101 27 1 113 26 200 200 - 1 119 26 24				70	I 24	29	
1 41 31 1 47 29 1 53 29 1 59 30 1 65 31 1 71 31 77 28 1 89 28 1 89 28 1 101 27 1 101 27 1 101 27 1 113 26 1 119 26 NO NO NO NO NO NO NO NO NO NO NO NO NO							
47   29   1   53   29   1   59   30   1   65   31   1   71   31   1   77   28   1   89   28   1   89   28   1   101   27   1   101   27   1   107   26   1   113   26   1   119   26   1   125   24   1   131   26   1   131   1   1   1   1   1   1   1		EUE	03	70			
日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日							
300 1 71 31 77 28 1 89 28 1 89 28 1 101 27 1 101 27 1 107 26 1 113 26 200 200 1 119 26 2 1 125 24 1 131 26				j			
300 1 71 31 77 28 1 83 27 1 89 28 1 95 28 1 101 27 1 107 26 1 113 26 1 119 26 N 200 - 1 125 24				!	59	30	
日 250 日 25		200					
日 250 日 25		300	7 7 1				
日 250 - 1 95 28 1 101 27 1 107 26 1 113 26 26 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2							
1 95 28 I 101 27 I 107 26 I 113 26 I 125 I 125 I 131 24	_						
□ 200	<u></u>	250 -		-		28	
200 - 1 113 26 1 125 24 1 131 24	<u>_</u>						
200   1 119 26   1 125 24   1 131 24	للنا						
Z 1 125 24 1 131 24		ano 📙					
	Z						
	0		) )				
1 137 23	<u> </u>	. 50		] 1		23	
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n 1 144 22	$\overline{\alpha}$	}	/	-			
I 155 23 I 161 22				1			
以 100	=	100	)				
1 173 22	Ш			i			
<u>a</u> ( ) 1 179 20	О.			1			
50 - 1 185 19		50	. (				
171 17							
1 197 19 1 203 20							
1 200 20							
1 214 19				and the same of the same			
-100 -50 0 50 100 <b>1 221 19</b>				_	221	19	
CAVITY PROFILE I 226 18		. CA	VITY PROF	I L.E			
1 233 18							
1 238 19 1 245 19					238		
1 251 17				1			
i 257 17				i			
689 <b>1 263 17</b>				689	263	17	
I 269 18				1	269		
I 274 17							
I 280 17				1	280	17	

# ROUND NUMBER 471 CONTINUED

1	286	16
1	292	15
3	298	13
1	304	12
1	310	12
1	316	11

POJECTILE MASS (GR) - 7.128

PROJECTILE TYPE -- SUPERVEL, JSP. 38SP PROJECTILE VELOCITY (HPS) -- 347.47

PROJECTILE DIAMETER (CM) -- 9.068

PROJECTILE DE	FORMATION		CAVITY MEASUR	ERERTS	-
PENETRATION DISTANCE (NM) -13 15 51 86 123 173 197	PRESENTED AREA (MM++2) 47 52 91 125 154 130 131	47	I PENETRATION I DISTANCE (MK) I 0 1 6 I 12 I 17 I 24 I 29 I 35 I 41 I 47	CAVITY RADIUS (MM) 19 23 26 29 32 33 34 33	
300	<del></del>	]	1 53 1 59 1 66 1 71 1 77	31 30 29 29 29	
王 250 L		_	l 83 I 90 I 95 I 101	28 28 28 27	
200			1 113 1 119 1 125	27 25 25 26 26	
ENETRATION 100 100 100 100 100 100 100 100 100 10		- 1	1 137 1 143 1 149 1 155	26 24 22 23	
300 - 30 - 50 -			1 161 1 167 1 173 1 179 1 185	23 22 21 21 20	
0			197 203 209	18 16 18 19	
-100 Cf	-50 0 AVITY PROM	50 100 FILE	221 227 233 238	19 19 17 16	
		691	250 256 262 268 274	17 17 16 16 15 16	

# ROUND NUMBER 475 CONTINUED

I	286	14
1	292	14
1	298	13
i	304	12
I	310	12
1	315	10

ROUND NUMBER -- 474

PROJECTILE MASS (GM) -- 7-128

PROJECTILE TYPE -- SUPERVEL, JSP, 38SP PROJECTILE VELOCITY (MPS) -- 374.60

PROJECTILE DIAMETER (CM) -- 9.068

PROJECTILE DE	FORMATION		I CAVITY HEASUR	EMENTS
PENETRATION DISTANCE (MM) -5 25 60 98 133 182 205	PRESENTED AREA (MN++2) 49 61 55 56 48 62	CROSS—SECT     AREA (MM**2)	I PENETRATION I DISTANCE (MM) I 0 I 5 I 12 I 18 I 24 I 30 I 36 I 42 I 48	CAVITY RADIUS (MM) 26 28 30 32 33 35 37 37
300 DEPTH 250 -100 CEPTH 5	-50 0 AVITY PRO	50 100 FILE	1 54 1 60 1 66 1 72 1 78 1 84 1 90 1 96 1 102 1 108 1 114 1 120 1 126 1 132 1 138 1 144 1 150 1 156 1 162 1 168 1 174 1 180 1 186 1 198 1 204 1 210 1 216 1 228 1 234 1 240 1 246	37 36 35 35 34 33 32 32 32 30 29 30 28 28 28 27 23 21 23 24 25 24 25 24 25 26 18 18 18 18 18 18
		693	1 252 1 258 1 264 1 270 1 276 1 282	15 15 15 15 13 13

### ROUND NUMBER 474 CONTINUES

Ī	288	12
2	293	11
I	300	11
ľ	306	10
1	312	10
Ī	318	10
1	323	8
I		

ROUND NUMBER -- 372

PROJECTILE WASS (GM) -- 11.664

PROJECTILE TYPE --SUPERVEL, JSP, 44MAG PROJECTILE VELOCITY (MPS) --487\_68
PROJECTILE DIAMETER (CM) --- 10\_846

PROJECTILE I	EFORMATION	I	CAVITY MEASURI	EMENTS
PENETRATION DISTANCE (NI  0 40 88 141 193 266 303	8) AREA (MM+#2) AREA 96 82 84 94 83 89 79		PENETRATION DISTANCE (MM) 0 4 9 13 18 23 28	CAVITY RADIUS (HM) 40 41 42 42 42 44 47
PENETRATION DEPTH	-50 0 50 CAVITY PROFILE	1	33 37 42 47 51 56 61 65 70 75 80 84 89 94 99 103 108 113 117 122 127 131 136 141 146 150 165 169 174 179	48 48 48 49 48 49 49 49 49 47 47 47 48 49 49 47 41 41
	SIIVIII I INON IE.E	695 I I I I I	183 188 193 197 202 207 211 216 221	42 44 45 45 44 42 40 40

# ROUND NUMBER 372 CONTINUED

I	226	40
I	230	38
Ī	235	40
1	240	40
Ī	244	39
1	249	- 38
I	254	37
1	259	37
1	263	35
ł	268	36
1	273	36
Ī	278	36
1	282	36
1	287	35
1	292	34
1	296	32
1	301	32
I	306	30
3	310	28
I	315	26
1	320	26

ROUND NUMBER -- 498 PROJECTILE WASS (GM) -- 2-398

PROJECTILE TYPE --W-W,LHP,22CAL PROJECTILE VELOCITY (MPS) --266.40

PROJECTILE DIAMETER (CH) -- 5.639

PROJECTILE DE	FORMATION		CAVITY MEASUREMENTS
PENETRATION DISTANCE EMM) -7 14 38 61 83	PRESENTED AREA (MM*#2) 21 58 86 86 86	AREA (MM++2) 21 88 92 86 94	I PENETRATION CAVITY I DISTANCE (NM) RADIUS(NM) I 0 9 I 5 9 I 9 10 I 14 10 I 19 11
110 121	49 53	63 86	1 24 11 I 29 12 I 33 12 I 38 12 I 43 12 I 48 13
300	<u> </u>		I 52 13 1 57 13 I 62 13 I 67 13
E 250			I 71 13 I 76 13 I 81 13 I 86 12 I 91 12
200 -		-	1 95 12 1 100 11 1 105 11 1 110 10
150 - 150 -			1 120 9 1 124 9 1 129 8 1 134 8
100 - 11 2 50 -			I 139 7 I 144 6 I 149 5 I 153 5 I 158 4
0	-50 0	50 100	I 163 4 I 167 4 I 172 4 I 177 4
- 1.00 C f	AVITY PRO	FILE	I 182 4 I 187 4 I 192 2

PROJECTILE TYPE --W-W,LHP,22CAL

PROJECTILE VELOCITY (MPS) -290-17

PROJECTILE DIAMETER (CM) -- 5.639

PR	DJECTILE DE	FORMATION		1 CAVITY HEASU	REMEMTS	
	NETRATION STANCE EHM3 -7 15 43 71 99 131 142	PRESENTED AREA (MM+#2) 23 26 29 26 27 36	CRDSS-SECT AREA (MM++2) 21 23 26 29 26 27 37	1 PENETRATION 1 DISTANCE EMM 1	CAVITY PADIUS (MR) 7 8 9 10 12 14 15 16 16	
Ξ.	300		· · · · · · · · · · · · · · · · · · ·	1 47 1 52 1 57 1 61 1 66 1 71 1 76 1 81	16 16 15 15 15 14 14	
RATION DEP	200			1 85 1 90 1 95 1 100 1 105 1 109 1 114 1 119	13 14 14 14 13 13 14 14	
PENET	50			1 129 1 133 1 138 1 143 1 148 1 152 1 157 1 162	13 13 12 12 11 11 11	
		-50 0 VITY PROF	50 100 TLE	1 167 1 172 1 176 1 181 1 186 1 191 1 196 1 200	9 8 8 7 6 5 5 5	
v			698	1 205 1 210 1 214 1	4 4 3	

PROJECTILE TYPE --W-W, LHP, 22CAL

PROJECTILE VELOCITY (MPS) --311.20

PROJECTILE DIAMETER (CM) -- 5.639

PROJECTI	LE DEI	FORMATION	I CAVITY MEASUREMENTS			
-6 15		PRESENTED AREA (MM**2) 21 37	CROSS-SECT AREA (MM**2) 21 37	I PENETRATION I DISTANCE (M I O I 4	M) RADIUS(MM 11 11	)
43 65 87 113 122	•	48 41 45 57 52	41 45	I 9 I 14 I 19 I 23 I 28	12 13 14 15 17	. •
				I 33 I 38 I 42 I 47 I 52	18 18 19 20 20	
300				I 57 I 61 I 66 I 71	20 19 19 18	
DEPTH 033				I 76 I 80 I 85 I 90	17 16 15 14	
0 200 NO:				I 95 I 99 I 104 I 109	13 13 11 10	
ENETRA 100				I 114 I 118 I 123 I 128	10 10 9 8	
PENE PENE				I 133 I 137 I 142 I 147	8 7 6 6	
50	-			I 152 I 156 I 161 I 166	5 5 4 4	
G -	L 1.00 C.F	-50 C RVITY PROF	50 100	I 171 I 175 I	4 2	

PROJECTILE TYPE -W-W. PP. 9MM PROJECTILE VELOCITY (MPS) -215.80

PROJECTILE DIAMETER (CH) - .897

PROJECTILE DEFORMATI	I CAVITY HEASUR	EMENTS	
	MM=+2) AREA (MM=+2)	I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM)
11 62 30 69	62 69	1 0	9 10
54 61	61	1 9	11
78 65	65	1 13	13
106 68	. 71	I 18	14
u.		1 23	14
		1 27 1 32	14 13
		1 37	13
4.1		I 41	
200		1 46	13 13
300		I 51 I 55	12 12
		I 60 I 64	12 13
I 250 -		1 92	13
Ω		I 78	13
D		i 63	13
5/UU		1 88	13
ຄ N		I 92	13
5		1 97	13
± 150 +		I 102 I 106	13 13
45		i 111	13
N 100 1		1 116	13
		I 120	13
₩ 190 . H		I 125	13
П П		I 130	13
		1 134	14
50 H	1	I 139	14
	\ '	I 144 I 148	13 13
·		1 153	14
o L	\	I 157	14
		i 162	14
-100 -50	0 50 100	167	14
CAVITY	PRØFILE	1 172	14
		I 176	14
		I 185 I 190	14 14
		I 195	14
		1 199	14
	700	I 204 1 209	14 13
		1 213	13
	0	7 218	12
		· <del>-</del>	

# REUND NUMBER 61 CONTINUED

I	222	11
Ī	227 232	10 9
1	236 241	8 6
i	246 250	8
Ŧ	255	<b>8</b>
. 1	264	6
1	269	6
1 1 1	274	4
ı	278	5
1	283	4
I	285	4
1	287	6 4 5 4 4 3
	289	3
I	0	0

ROUND NUMBER - 62 PROJECTILE HASS (GH)- 6.480

PROJECTILE TYPE =-N-W. PP. 9NN PROJECTILE VELOCITY (NPS) -298.45

PROJECTILE DIAMETER (CH) - .......

PROJECTILE DEPORMATION J							CAVITY HEA	SUREMENTS		
PENETRATION PRESENTED CROSS-SECT DISTANCE (NN) AREA (NN++2) 15						] 	PENETRATIO DISTANCE I	M CAVITY MH) RADIUS(MH) 13		
	43		56			54	1	4	13	
	122		52			34	I	13	18	
							]	23 27	19 19	
						e.	Į	32 37	19 19	
	300				<del></del>		i	41	19	
	000			1	1		1	46	18	
			.				,	51 55	19 19	
<u>.T_</u>	250			\			j	60	19	
<u>⊤</u> ⊢ □ .				. \			1	64	19	
. نه لخا				1			I	69 74	19	
	200					_	1	78	19 19	
7	7 00						Ī	63	19	
Z ED			-				1		18	
<b>⊢</b> ∵	453	i					I	92	18	
ட	15ป						I	97 101	18 18	
$\alpha$		ļ		ļ.			ī	106	17	
⊢ i i i			}	(			ī	iii	16	
ГП М ГП	190		}				1	115	17	
С. П.				)			ļ	135	18	
	50	<u> </u>	1				1	134	19	
				1.			Ī		19	
			1	•			Ĩ	143	19	
	Э	L ;	. 1 /	1 /			,	148 152	19 19	
		100	-50	0	50	100	3	157	19	
	_		V [ T Y				Ī	161	19	
		U.F	V I I I	1 1/ (4	i L. L.		Ī	166	20	
							J	171	20	
							1	1 <b>7</b> 5 1 <b>8</b> 0	21 21	
							i	185	21	
							. 1	189	21	
							I	<b></b> -	21	
	•	•				700	Ţ	198	21	
						702	7	203	21	
							ļ	208 212	<b>21</b> 20	
						•	1		20	

## ROUND NUMBER 62 CONTINUED

I	221	19
I	526	19
1	231	18
j	235	18
I	240	17
ĭ	245	17
I	249	16
I	254	16
J	258	15
3	263	15
ī	268	14
1	272	14
1	277	13
1	282	12
1	286	11
1	291	11
I	295	10
ł	300 305	10
1	305	10
I	309 315	9
Ī	517	9

ROUND NUMBER - 63

PROJECTILE MASS (GM) - 6.480

PROJECTILE TYPE -W-W. PP. 9MM PROJECTILE VELOCITY (MPS) -351.95

PROJECTILE DIAMETER (CM) - .897

PROJECTILE DE	FORMATION		I CAVITY HEASURI	EMENTS
PENETRATION DISTANCE (MM)			I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (HH)
18 49	67 63	67	I 0 I 4	15
88	60	63 60	I 4 I 9	17 19
124	65	66	1 13	22
164	68	70	1 18	23
			I 22	24
			1 27	25
			1 32	25
300			I 36	25
300	7 1 1		I 41	26
			I 45	26
			50	26
= asc  -			I 55 I 59	26 25
			I 64 I 68	24 24
200			I 73 I 78	24 24
150 -			1 82	23
'			Ī 87	23
150	1 )		I 91	23
100	(	, –	1 96	22
	1		I 101 I 105	21 21
	<b>.</b> .		I 110	21
10g  -			i 114	21
			i 119	21
			1 124	20
<b>5</b> 0	)		1 128	20
50 <del> </del>		<del>-</del>	1 133	20
			I 138	19
	\ /		I 142	19
0	L		1 147	19
	50 g	50 100	1 151 I 156	19 19
the state of the s	ITY PROF	ILE	1 160	19
		w L., C.,	I 165 I 170	18 18
			1 172	18
			1 173	13
	-		I 188 I 193	19 18
			1 197	18
			1 202	17
		704	I 206	16
			1 211	16

# ROUND NUMBER 63 CONTINUED

1	220	15
1	225	16
1	229	16
I	234	16
1	239	16
1	243	16
i	248 252	15 15
ļ	257 262	15 14
1		
ļ	266 271	14 14
i	275	14
ì	280	14
i	285	13
i	289	13
1	294	13
ì	298	12
I	303	11
I	308	10
1	312	10
I	317	9
I	319	9
I	0	0

PROJECTILE TYPE -W-W, PP. 9MM

# PROJECTILE VELOCITY (MPS) -410-52

PROJECTILE DIAMETER (CH) - .89

1	PROJECTILE DE	FORMATION	I CAVITY HEAS	CAVITY HEASUREHENTS		
	PENETRATION DISTANCE (RM)	PRESENTED AREA (MM==2)	CROSS-SECT AREA (MM++2)	PENETRATION DISTANCE (M	CAVITY M) RADIUS(MM)	
	<b>33</b>	43	3 3	1 2	<b>33</b>	
	132	38	83	12	31	
	155	106	106	1 23	37	
				1 28		
				I 32	39 41	
				I 37 1 41	42 43	
	300	T 7 1T	·	1 46	44	
		'		I 51	45	
		/ )		1 55 I 60	45 46	
I	250		_	I 64	46	
Ω.				1 69	46	
DE				ī 74	46	
<u>ц</u>	auc <u>–</u>			1 78 I 83	46 45	
ΝΩ				1 88	45	
<u>``</u>				ī 93	44	
<u>-</u>	150			1 .27	43 41	
TRGT				I 102		
-				I 106 I 111	41 40	
Ŋ.	102 -			I 116 I 120	38 37	
أنبنا						
Ω.				1 138	32	
	50 <b>–</b>			I 134	32 32	
		\		I 139	32 31	
	,	. /	•	I 144 I 148	31	
	c L	_ \		I 153	31	
	-100 -5	· / / -		1 157	30	
	CAV	=		J 162 I 167	30 29	
	CHV	ITY PROFI	LE	1 171	28	
				I 176	26	
				1 180	24	
				1 185 1 190	22 21	
				1 194	19	
				1 199	18	
	•			I 204	17	
			706	1 208 1 213	15 14	
	•			1 218	1 <b>4</b>	

## ROUND NUMBER 64 CONTINUED

I	222	13
I	227	12
I	232	12
I	236	11
1	241	11
Ì	245	10
3	250	10
İ	255	10
j	259	9
Ĭ	264	8
i	269	8
i	273	8
j	278	7
]	283 287	7
1	292	6
i	296	
i	301	5
i	306	. ś
		Ę
ł	310	6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

PROJECTILE TYPE -- W-W, PP, 9MM

PROJECTILE VELOCITY (MPS) -418-11

PROJECTILE DIAMETER (CH) - .897

PROJECTILE DEFORMATION						I CAVITY HEA	SUREMENTS
_	NETRA STANC 22 58 104 148 191	E (MM)	PRESENTE AREA (MM: 52 57 54 42 3		SS-SECT R: (MM++2) 52 58 58 59 55	1 PENETRATIO I DISTANCE (II O II	N CAVITY HH) RADIUS(HH) 18 19 21 23 24 24
	300		T / T		<mark>-]</mark>	1 32 1 36 1 41	25 25 25 25 25
<del></del>	โลยป			\	<del>-</del>	1 45 1 50 1 55 1 59 1 64	25 25 25 25 25 25
DEPT	200					1 48	<b>2</b> 5
1 CN	150					1 77 1 82 1 87 1 91 1 96	25 25 24 24 24
TRG						1 100 I 105 I 110	24 24 24
PENE	193					1 114 1 119 I 123 I 128	24 24 24 23
	<u>,</u> 50				7	1 132 1 137 1 142	24 24 24
* :	· 0		-50 C VITY P		190 =	I 146 I 151 I 155 I 160	24 25 25 26
		O :				1 160 1 165 1 169 1 174	26 27 27 28
						1 188 1 192	29 29 29 29
	٠.					I 197 I 201 I 206 I 210 I 215	29 28 28 27 26

## ROUND NUMBER AS CONTINUED

ľ	220	26
Ĭ	224 229	24 23
I		
I	233	22
I	238	22
1	243	51
Ĭ	247	20
ļ	<b>35</b> 2	18
I	256	18
ì	261	17
1	265	17
Ī	270	16
Ī	275	15
I	280	14
1	284	14
I	288	13
Ĭ	293	13
I	298	12
1	302	12
I	307	11
I	311	11

PROJECTILE TYPE -W-W. PP. 9MH PROJECTILE VELOCITY (MPS) -478.29

PROJECTILE DIAMETER (CM) - .897

PRBJECTILE	DEFORMATION	********	I CAVITY HEASUR	EMENTS
PENETRATIO DISTANCE ( 23	N PRESENTED MM) AREA (MM++2) 158	CROSS-SECT AREA (NH++2) 159	PENETRATION DISTANCE (MM)	CAVITY RADIUS (MM) 30
5 g	193	193	1 5	<b>3</b> 3
131	138 159	153	14 18	48 50
			1 23 1 27	53 54
			I 32	55
300 -			1 37 1 41	56 56
300		Γ	I 46	50 57
			1 50	57
王 250			1 55 1 59	58 58
Δ.	/_\		1 64	58
لبا			i 69	58
50c			1 73 I 78	58 57
N D			1 83	56
7			I 87 I 92	55
<u>⊢</u> 150 ⊢		_		54 53
TRE			1 101	53 52
<b>⊢</b>			1 106 1 110	50 49
100		\	I 115	47
100 -			1 119	45
			1 133	23
50		_	I 133	. 39
			1 138	37
_   .			i 142 I 147	. 34. 32
0 L	.,		I 151	30
-100	-50 0	100	I 156 I 161	28 27
	CAVITY PROF	115	I 165	26
		:		25
			I 174 I 179	23 21
	,		1 184	19
			I 188	17 •
			I 193 I 197	15 13
•			1 202	12
			I 206	11
			I 211 I 216	10
			I 216	10

# ROUND NUMBER 60 CONTINUED

I	220	10
ì	225	9
1	230	8
I -	234	6
I	238	5
Ī	240	3

PROJECTILE TYPE -W-W, FJ. .38 AUTO PROJECTILE VELOCITY (MPS) -336.47

PROJECTILE DIAMETER (CM) - .907

PROJECTILE I	EFORMATION	****	I CAVITY HEASUR	EMENTS
PENETRATION DISTANCE (MI 13	PRESENTED 13 AREA (MM=+2) 62	CRUSS-SECT AREA (MR+42) 63	I PENETRATION I DISTANCE (MM) I O	CAVITY RADIUS (MM)
44 82	58 54	58 57	i 4	19
113	<del>5</del> 8	61 59	1 13	18 19
	30			20
			i 22 i 27	21
			i 32 l 36	21 21
			1 30 I 41	21
300			1 45	21
Ì	'   ' \	1	1 50	21
			1 55 I 59	21 21
I 250		_	1 54	21
-			1 68	22
<u>П</u>	/		I 73	22
200			1 78	22
i i			5 82 1 87	22 22
ON ON			! 91	23
<del>  </del>			I 96	23 .
150		7	1 100	. 23
<u>ac</u>			1 105 1 110	23
<u> </u>				23 24
100 –			1 114 1 119	24
			123	<b>24</b>
50			1 133 1 137	23 23
			1 137 I <b>14</b> 2	23
			1 146	24
o L			1 151	24
	F.43	50 100	I 156	24
-100	-50 0	50 100	1 160 I 165	24 24
Ĺ	AVITY PROF	ILE	1 169	24
			1 174	25
			J 178	25
			i 183 I 186	25 125
			1 192	25 25
			1 197	25
			1 201	25
			I 206	25
			1 211	24
		i	1 215	24

# ROUND NUMBER 56 CONTINUED

1	220	23
1	224	22
I	229	21
1	233	21
I	238	20
Ī	243	20
1	247	19
I	252	18
i	256	18
j	261	17
1	266	17
ī	270	17
ī	275	16
1	279	16
i	284	16
		15
]	288 293	15
	298 298	14
I I	302	13
I I	307 311	13 12
3	211	12

PROJECTILE TYPE -W-W, JHPH .38 SPEC PROJECTILE VELOCITY (MPS) -199.87

PROJECTILE DIAMETER (CM) - .907

· · · · · · · · · · · · · · · · · · ·				I CAVITY MEASUR	EMENTS
	NETRATION STANCE (MM) 6 22 44 65 85	PRESENTED AREA (MM**2) 55 42 48 54 41	CROSS-SECT AREA (MM**2) 55 42 49 57 48	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32 I 36	CAVITY RADIUS (MM) 7 7 8 10 12 12 13 14
ENETRATION DEPT	300 250 - 200 - 150 -			1 41 1 46 1 50 I 55 I 60 I 65 I 69 I 74 I 78 I 83 I 83 I 92 I 97 I 102 I 106 I 111 I 115 I 120 I 125 I 129	13 12 12 11 11 11 11 11 10 10 10 10 10 10 9 9
۵.	-100 CAV	=	50 100 ILE	1 134 1 138 1 143 1 148 1 153 1 157 1 162 1 166 1 171 1 176 1 180 1 185 1 190 1 194 1 199 1 204 208 213	9 9 10 9 8 8 7 7 7 6 6 6 6 5 5 5 4 4 4 3

## ROUND NUMBER 144 CONTINUED

I	220	1
Į	0	C
I	<b>o</b>	Q

PROJECTILE TYPE --W-W, JHP, .38 SPEC PROJECTILE VELOCITY (MPS) --209.09

PROJECTILE DIAMETER (CM) -- 9.068

PROJECTILE DEFORMATION			I CAVITY MEASUREMENTS			
	ETRATION TANCE (MM -10 6 29 51 74 121 129	PRESENTED 67 61 60 61 65 62 60	CROSS-SECT AREA (MM**2) 67 61 60 61 65 62	I PENETRATION I DISTANCE (MM) I 0 I 4 I 8 I 13 I 18 I 22 I 27 I 32 I 36 I 41	CAVITY RADIUS (MM) 9 11 12 14 16 17 18 19 19	
	300			I 45 I 50 I 54 I 59	19 19 18 17	
₽.,	250 –			I 64 I 68 I 73 I 77 I 82	18 17 16 16 15	·
N QN	200 -		-	I 87 I 91 I 96 I 100	15 15 15 14	
TRA	150			I 105 I 110 I 114 I 119 I 123	13 13 13 13	
PENE	100 <del> </del>			I 128 I 133 I 137 I 142	11 11 10 10	
	3			I 146 I 151 I 155 I 160 I 165	10 9 9 8 8	
	-100 C	-50 8 AVITY PRØF		I 169 I 174 I 178 I 183	7 7 7	
			716	I 188 I 192 I 197 I 201 I 206	7 7 7 6	٠.
				I 210 I 215	6 6 5	

## ROUND NUMBER 297 CONTINUED

ľ	220	5
I	224	5
I	229	
I	234	5
I	238	4
I	243	5 5 4 4
Ī	247	5
1	252	5 5
Ī	257	5
ĩ	261	5
Ī	266	5
î	270	s
ì	275	ś
Ī	279	5
ľ	284	5
i		5
	289	2
Ï	293	6
Ţ	298	6
I	302	6
ĺ	307	6
I	312	6
I	316	6
I	321	6
I		

ROUND NUMBER - 38

PROJECTILE TYPE +W-W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -216.74

PROJECTILE DIAMETER (CM) - 0.907

PENETRA		FORMATION PRESENTED	CROSSWAECT	I CAVITY MEASUR I I PENETRATION	CAVITY
DISTANC		AREA (MM++2)	AREA (MM++2)	I DISTANCE (HM)	RADIUS (MM
-1		43	43	1 0	10
16 39		60	63	1 4	11
59 61		70 77	73	1 9	14
82		72	77 83	I 14	16 . 18
9.6		/ 2	0.0	I 23	18
				1 28	19
				i 32	19
		·		1 37	19
300			and the second of the second o	1 42	18
300				1 47	18
				I 51	17
				I 56	17
	<u> </u>	$\cap$	4	I 6i	17
		/ / .		I 66	17
		11		I 70	17
) 		/ \	İ	I 75	17
່ ຄນດ	_	1 1	-	I 80	17
<b>&gt;</b>				1 84	17
<u>.</u>				I 89	17
<u>-</u>				I 94	17
150	-		. 🔫	1 99	16
<u>.</u>		\		1 103	16
<del>-</del> -·				I 108	15
				I 113	. 15
100			٦	I 118	14
	İ			1 122 1 127	14
<b>.</b> .			•	1 125	· 13
50	L	\	-	1 136	12
ڼړ،				1 141	12
		1 1.		1 146	11
				1 151	11
. 0				I 155	10
	100	-50 0	50 100	I 160	10
-,				I 165	10
	CH	VITY PRØF	1. [.	1 169	9
		·		1 174	9
				1 179	9
				I 184	8
				I 189	8
				1 193	8
				1 198	8
		• •		I 203	7
				1 207	7
				I 515	6
			<b>7.</b> -	I 217	6
			718	I 221	6

1	226	5
1	231	5
I	236	5
Ī	240	4
1	245	4
1	250	3
Ĭ	252	2
1	254	1
1	···	ñ

PROJECTILE TYPE -W-W, JHP. .38 SPEC PROJECTILE VELOCITY (MPS) -239.06 PROJECTILE DIAMETER (CM) - .907

PROJECTILE DEFORMATION			I CAVITY MEASUREMENTS	
PENETRATION CISTANCE (MM) 7 27 50 71 91	PRESENTED AREA (MM**2) 54 94 91 101 104	AREA (MM**2) 54 94 91 101 164	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32	CAVITY RADIUS (MM) 11 12 13 16 19 20 22 23
300			I 37 I 41 I 46 I 51	23 23 22 21
± 250 −			I 55 I 60 I 65 I 69	20 19 18 17
ON DEP			I 74 I 79 I 84	17 16 16
DI 150 -			I 93 I 97 I 102	15 14 13 12
N 100 -		-	I 107 I 112 I 116 I 121	10 9 8 8
50		<b>-</b>	I 126 I 130 I 135 I 140	7 6 5 5
0 -100			I 144 I 149 I 154 I 158	5 5 5 4 4
	VITY PRØF	ILE :	I 163 I 167 I 172 I 177	4 4 4
		÷ .	I 182 I 186 I 191	4 3 4
·*.		1	1 195 1 200 1 205	4 3 3

ROUND NUMBER -- 288 PROJECTILE MASS (GM) -- 7.128

PROJECTILE TYPE --W-W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) --245.06

PROJECTILE DIAMETER (CM) -- 9.068

	PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
	PENETRATION DISTANCE (MM) -10 7 33 53 74 116 121	PRESENTED AREA (MM++2) 69 110 122 93 99 97	AREA (MM**2) 69	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 18 I 23 I 27 I 32 I 37 I 41	15 17 19 21 25 26 28 29 29	
	300 F			I 46 I 50 I 55 I 60 I 64 I 69 I 73 I 78 I 83 I 87 I 92	29 28 28 28 27 26 25 24 22	
•	100 L 120 L 100 L			1 97 I 101 I 106 I 110 I 115 I 120 I 124 I 129 I 133 I 138	19 18 17 17 17 16 15 14 13	
	2. 50 -100 Cf	-50 3 AVITY PROS	50 100	I 143 I 147 I 152 I 157 I 161 I 166 I 170 I 175 I 180	11 10 10 9 9 8 7 7	
				I 184 I 189 I 193 I 198 I 203 I 207 I 212 I 217	6 6 5 5 5 5 5 5	

# ROUND NUMBER 288 CONTINUED

1	221	5
I	226	5
I	230	<u> </u>
I	235	6
I	240	5
I	244	5
ſ	249	5
I	251	4
I	254	3
t	256	2
T		

ROUND NUMBER -- 296

PROJECTILE MASS (GM) -- 7.128

PROJECTILE TYPE --W-W, JHP, .38 SPEC PROJECTILE VELOCITY (MPS) --271.27

PROJECTILE	DIAMETER	(CM)	9.068
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PROJECTILE DEFORMATION I			CAVITY MEASUREMENTS		
PENETRAT IO I STANCE -8 11 36 57 78 114 118		PRESENTED AREA (MM**2) 77 145 162 158 155 147	CROSS-SECT AREA (MM++2) 77 145 162 158 155 147	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 22 I 27 I 32	19 22 24 27 29 30 32
300		T T		I 36 I 41 I 45 I 50 I 54 I 59 I 64	33 33 33 34 34 33 33
250			-	I 68 I 73 I 77 I 82 I 86	32 30 29 28 26
200  -			-	I 91 I 96 I 100 I 105 I 109 I 114	25 23 23 22 20
102				I 118 I 123 I 128 I 132 I 137	19 17 16 15 13
53			•	I 141 I 146 I 150 I 155 I 159	9 8 8 7 7
a L. -100	CA'	-50 0 VITY PROF	sa tea ILE	I 164 I 169 I 173 I 178 I 182 I 187	7 6 6 5 5 5
				1 189 I 192 I	5

ROUND NUMBER -

PROJECTILE MASS (GM) - 7.126

PROJECTILE TYPE -W-W, JHP, .357 MAB PROJECTILE VELOCITY (MPS) -277.89

PROJECTILE DIAMETER (CM) # 0.907

	ECTILE DE	1	I CAVITY MEASUREMENTS		
PENE		PRESENTED AREA (MM++2)	CROSS=SECT AREA (MM++2)	I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM
	1 22	92 150	92 150	I 0 .	20 21
	47	146	146	1 9	24
	70	161	161	1 13	26
	90	161	162	I 18	29
				I 23	31
				I 27	32
				1 32	33
				1 37	33
				1 41	33
				I 46 I 50	33 32
30	0			1 55	35
				I 60	31
				I 54	30
25		•	-	1 69	29
			į	74	28
		•		I 78	27
į				1 83	26
່ວຍ	oc <del> </del>			I 88	25
				1 92	24
;			4	I 97 I 101	23
٠.	-,,	/ \		I 101 I 106	22 21
	50 -	/ \		I 111	19
-				I 115	18
		/		1 120	17
۱ ا	ac ⊢	<i>f</i> :		1 125	16
				1 129	15
			1	I 134	1.4
					12
	50	1		1 143	11
		\	1	148	10
		\	į ,	I 153 I 157	9
	o L		· · · · · · · · · · · · · · · · · · ·	I 162	8 7
		-50. 0		1 166	6
	-100			171	6
	CF	AVITY PROP	) <u>i</u> L. L	176	6
			· · · · · · · · · · · · · · · · · · ·	180	6
				184	5

ROUND NUMBER - 142

PROJECTILE MASS (GM) - 7.128

PROJECTILE TYPE -W-W, JHP, .38 SPEC PROJECTILE VELOCITY (MPS) -308.81

PROJECTILE DIAMETER (CM) - .9C7

PROJECTILE DEFORMATION I			I CAVITY MEASUR	EMENTS
PENETRATION CISTANCE (MM) 9 32 58 81 161	PRESENTED AREA (MM**2) 67 190 179 219 214	CRCSS-SECT AREA (MM**2) 67 190 179 220 214	I PENETRATION I DISTANCE (MM) I 0 I 5 I 9 I 14 I 19 I 23 I 28	CAVITY RADIUS (MM) 19 21 25 28 31 33
300	T 1	] 	I 32 I 37 I 42 I 46 I 51	35 36 36 36 37
E 250			1 56 1 61 1 65 1 70 1 75	37 36 35 34 33
150 L 150 L 150 L 150 L		]	1 79 1 84 1 89 1 93 1 98	32 31 29 27 25
N 100 -			1 102 1 107 1 112 1 117 1 121	23 22 20 18 17
a. 50			1 126 1 131 1 135	15 14 12 11
	-50 0 VITY PRØF		154 159 163 168	8 8 7 6 6
		] !		6 3

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM) -8 12 40 61 83 122 126	PRESENTED AREA (MM**2) 80 196 223 194 215 206 182	AREA (MM**2) 80 196 223 194 215 212 182	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32 I 36 I 41 I 45	23 26 29 31 34 37 39 40 41 41	
300 <u>#</u> 250		<b>T</b>	I 50 I 55 I 59 I 64 I 68 I 73 I 77 I 82	42 41 41 39 37 35 34	
200 L		-	I 87 I 91 I 95 I 100 I 105 I 109 I 114 I 119	32 32 30 29 28 27 25 23	
20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 -			I 123 I 128 I 132 I 137 I 141 I 146 I 151 I 155	21 20 18 16 15 14 12	
	-50 0 VITY PRØF	50 180 ILE	I 160 I 164 I 169 I 174 I 178 I 183 I 187 I 192 I 196	10 9 8 7 7 6 7 7	

ROUND NUMBER + 36 PROJECTILE MASS (GM) + 7.128

PROJECTILE TYPE -W-W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -319.88

PROJECTILE DIAMETER (CM) + 0.907

PENETR		PRESENTED	CROSS-SECT	I I PENETRATION	CAVITY
DISTAN			2) AREA (MM**2)	I DISTANCE (MM)	
	6 .	.85	85	1 0	23
	9 6	164	164	1 4	26
8		161 181	161	I 9	29
11		165	182 166	I 13 I 18	31 33
	•	100	100	I 52	34
				1 27	35
				1 32	36
				1 37	37
				I 41	37
300	<u> </u>	T T	T	1 46	37
	i			I 50	37
	İ			I 55	37
00.0	Ì			1 59	36
⊑ 250				I 64	36
<u>L</u> .	İ		1	1 69	35
Li	•			1 73	34
200 _	<u></u>			I 78	33
		=->	**	I 83	32
Z -	ŧ	/ \		I 87	30
_	1	) \		1 92	29
150		/ \	$\dashv$	1 96	25
Γ	:	/ \		I 101	26
150 HW HW 100	1	/		1 106	24
. !			į	I 110	23
분 10C	<u> </u>	/	!	I 115 I 120	21 20
 ٺ		/	;	1 124	18
	1	1	\	1 129	17
		}		1 134	15
50	<u> </u>			1 138	14
	i		1	I 143	13.
				1 147	12
а		1 \ 1		1 152	11
				I 157	9
-	100 -	-50 0	50 100	1 161	9
	CAY	VITY PRO	FILE	I 166	8
	٠. r			1 171	7
				I 175	7
				1 180	6
				I 183	5
				I 184	5
				1 186	5
				1 0	.0
				1 0	0

PROJECTILE TYPE --W-W. JHP. .38 SPEC PROJECTILE VELOCITY (MPS) --326.75

PROJECTILE DIAMETER (CM) -- 9.068

PROJE	CTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	****
DI STA	RATION INCE (MM) -6 16 44 66 88 24 28	PRESENTED AREA (MM**2) 106 187 190 190 207 190 198	CROSS-SECT AREA (MM**2) 106 187 190 190 207	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 22 I 27 I 32 I 36	CAVITY RADIUS (MM) 24 27 30 32 34 36 38 39	
30	JC	<u> </u>		I 41 I 45 I 50 I 54 I 59	41 42 42 42 42	
# 20 # 20	.e			i 64 i 68 i 73 i 77 i 82	41 40 38 37 36	
1 GN D	0	*		I 86 I 91 I 95 I 100 I 104	34 35 34 32 30	
NETRAT 10				109 114 118 1123 1127	28 27 25 23 22	
لَــَا ب			)	I 132 I 136 I 141	22 20 18 16 15	
(			90 60.	I 155 I 159 I 164 I 168	12 10 9 8	
***	LA/	VITY PROF	ILE	177 182 187 189	7 7 7 6 6	
			728	191	6 6	

ROUND NUMBER -35

PROJECTILE MASS (GM)- 7.128

PROJECTILE TYPE -W-W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -330.51

PROJECTILE DIAMETER (CM) - 0.907

	PROJECTILE D	FORMATION	I CAVITY MEASUREMENTS		
	PENETRATION DISTANCE (MM	PRESENTED AREA (MM++2)	GROSS-SECT AREA (MM**2)	I PENETRATION I DISTANCE (MM)	CAVITY RADIUS(MM)
	9	90	90	I n	26
	34	161	163	1 4	28
	62	194	195	1 9	30
	87	229	229	1 14	32
	108	179	179	I 18	34
				23	35
				1 27	37
			•	I 32 I 37	37 38
				1 41	36 38
	300	<del>-</del>		1 46	38
	300		!	1 40 I 51	38
				1 51 1 55	39
				1 60	38
-	<u> Σ</u> 25υ		-	1 64	38
				1 69	37
£	<u> </u>		į	1 73	35
í				78	35
	200		$\neg$	I 83	34
	2	$\bigcap$		I 88	33
. 1		/ \		I 92	32
	-	/ \	· <u>_</u>	1 97	30
1	± 150 ±	/ \		I 101	29
·	2	/ \		I 106	27
	<del> </del>	/	1	111	26
	N 100 ⊢		$\rightarrow$	1 115	24
	2 100		·	I 120	23
	نیا			1 125	22
	Δ.		i	1 129	20
	50 🗕		-	I 134	19 17
				I 138 I 143	15
				I 148	15
		, \ , /		1 140 I 152	14
	3 F	<u>\</u>	<u> </u>	I 157	12
	-100 -	.ნა 0 5	50 100 E	1 162	11
		VITY PROFI		1 167	10
	ĻН	ATTA LAZON	L L . L .	171	9
				175	8
	·		,	1 180	7
			•	1 185	6
				1 188	6
				1 189	5
				0 1	Ô
				ı n	0

PROJECTILE TYPE -W-W, JHP, .38 SPEC PROJECTILE VELOCITY (MPS) -360.71
PROJECTILE DIAMETER (CM) - .907

PROJECTILE DE	FORMATION	I CAVITY ME	ASUREMENTS
PENETRATION DISTANCE (MM) 13 37 66 91 112	PRESENTED CROSS: AREA (MM**2) AREA 107 10 243 24 235 23 243 24 247 24	(MM**2) I DISTANCE 7 I G 3 I 4 6 I 9 3 I 13	ON CAVITY (MM) RADIUS(MM) 25 28 32 36 39 41 42 43
300		I 41 I 46 I 51	43 43 43
王 250 上 Q		I 55 I 60 I 65 I 69	43 42 41 39
10N DE		I 74 I 79 I 83 I 88	38 37 36 34
11 150 -		I 93 I 97 I 102 I 107	33 31 29 28
当 100 <b>—</b>		I 112 I 116 I 121 I 125	27 26 24 22
o. 50		I 130 I 135 I 140 I 144	19 17 16 15
0 -100 -100 C.E	-50 0 50 AVITY PROFILE	I 149 I 153 I 158 I 163 I 168 I 172 I 177	13 11 10 9 8 7
		I 181 I 186 I 187	6 5 3

PROJECTILE MASS (GM)- 7.128

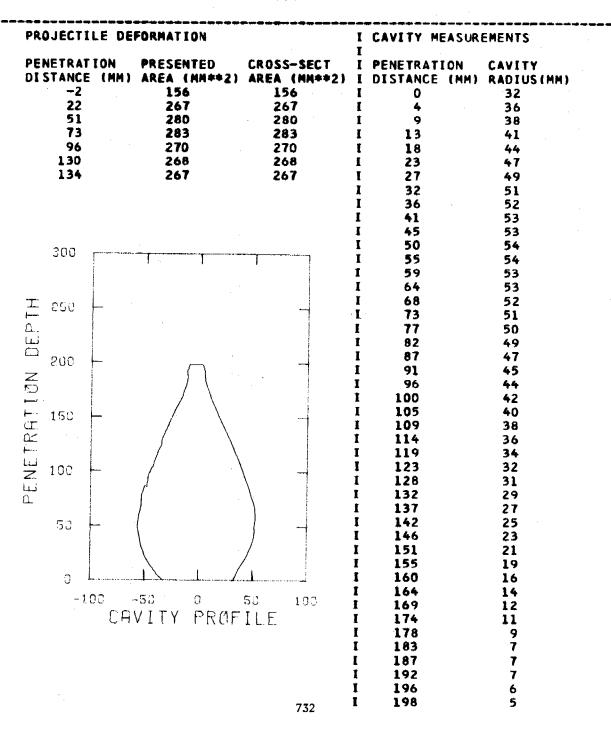
PROJECTILE TYPE -W+W, JHP, +357 MAG PROJECTILE VELOCITY (MPS) -364.85

PROJECTILE DIAMETER (CH) - 0.907

	-,	FORMATION	I CAVITY MEASUR		
PENETRAT	(MM)	PRESENTED AREA (MM**2	CROSS#SECT ) AREA (MM**2)	I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM
0	· rim /	0	0	1 0	25
ŏ		ő	Ŏ	i ä	28
Ō		Ō	0	1 9	31
ñ		0	. 0	1 13	33
ŋ		0	0	I 18	35
				1 23	37
				1 27	38
				I 35	39
				1 37	39
300				I 41	39
300	[		1	I . 46	39
	İ			I 51	39
				1 55	39
<u> </u>				1 60	38
		÷		1 65	38 37
Ţ.				1 69	37 37
با				1 74 1 78	36
200			$\dashv$	I 83	34
<del>z</del>				1 88	33
<b>z</b> 9				1 93	32
		/ \	•	1 97	30
150 	-	/ \		1 102	29
天		/ \		1 106	27
<del>-</del> -		/ \		1 111	25
٠, ١	İ	/ \		1 116	23
실 188		/		1 121	22
لب	İ	/		1 125	20
<u>1</u> .	1	1		I 130	16
50				1 134	17
טני		[		1 139	15
	Į	(		I 144	14
		. \ .		1 148	12
0	L		1	I 153	11
_	• 00	-50 0	50 100	1 158	9
_	100			1 162	8
	. CF	AVITY PRO	OF ILE	1 167	6
				1 170	6

PROJECTILE TYPE --W-W, JHP, .38 SPEC PROJECTILE VELOCITY (MPS) --380.09

PROJECTILE DIAMETER (CM) -- 9.068



PROJECTILE TYPE --W-W, JHP. .357 MAG PROJECTILE VELOCITY (MPS) --390.14
PROJECTILE DIAMETER (CM) -- 9.068

PROJECTILE O	PROJECTILE DEFORMATION		I CAVITY MEASURE	EMENT 5	
PENETRATION DISTANCE (MM		EA (MM##2)	I I PENETRATION I DISTANCE (MM)		
	309	122 30 <del>9</del>	I 3 I 4	32 36	
21 53	141	141	1 4	40	
7 <b>8</b>	106	106	1 - 14	43	
103	119	119	I 15	46	
145	108	108	1 23	48	
152	117	117	1 23	49	
			1 3?	51 53	
			I 37 I 42	52 53	
			1 45	54 54	
250			I 51	54	
300			1 55	54	
			I 60	53	
			I 65	52	
∓ 250 ⊢	. / /		I 69	51	
⊢ 550		7	I 74	50	
<u> </u>			1 79	46	
H 250	/ \		I 83	46	
200 -	/ )		I 85	43	
Z			1 93 1 97	40 37	
150 - 150 -	<i></i>		1 102	37 35	•
- 150	/ \		1 105	33	
± 150 }	/ 1	$\dashv$	i 111	31	
~					
<b>F</b>	/		I 116 I 121	29 27	
100 E	/		1 125	25	
			1 130	24	
Ω.	. /		1 134	22	
			1 139	20	
50 <u> </u>			1 144	19	
	\		1 143 1 153	19	
			1 158	19 18	
c L		1	1 162	17	
			I 16/	16	
-100	-50 D 50	100	1 172	ii	
C	AVITY PROFIL	F	I 176	10	
	111111111111111111111111111111111111111	-	1 181	10	
			I 186	10	
		-	1 190	10	
			1 195	10	
			1 199	10	
•		733	1 204	9	
			1 209	8	
			I 214	7	
			1 218	6	

## ROUND NUMBER . 2.86 CONTINUED

1	223	5
1	227	5
I	232	5
I	23/	5
Ī	241	6
1	246	5
I	251	5
1	255	5
Ì	260	5
I	2.65	4
Ī	263	- 5
1	2 /4	4

ROUND NUMBER - 33

PROJECTILE MASS (GM) - 7.128

PROJECTILE TYPE -W-W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -403.86

PROJECTILE DIAMETER (CM) = 0.907

PROJE	CTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENET; DISTA	RATION NGE (MM) O O O O	PRESENTED AREA (MM**2) 0 0 0 0	CROSS-BECT AREA (MM#+2) 0 0 0 0	I PENETRATION I DISTANCE (MM) I O I 4. I 9 I 14 I 18. I 23	CAVITY RADIUS(MM) 29 33 36 38 40 41
300 II 250			<b>T</b>	I 27 I 32 I 37 I 41 I 46 I 51 I 55	42 43 43 43 42 41
008 DEPT	_			1 60 1 65 1 69 1 74 1 79 1 83	40 39 37 36 35 33
NETRATION 190				I 88 I 92 I 97 I 102 I 106 I 111	32 31 29 26 26 25
田 山 50				I 116 I 120 I 125 I 129 I 134 I 139	23 22 20 19 17 16
-	100 -8 CAV	L L / 50 3 5 ITY PROFI	L 103 L.E	I 143 I 146 I 153 I 157 I 162 I 166 I 171 I 173	14 13 11 10 5 7 6

PROJECTILE TYPE -W-W. JHP. .38 SPEC PROJECTILE VELOCITY (MPS) -406.94

PROJECTILE DIAMETER (CM) - . .907

PROJECTILE	DEFORMATION		I CAVITY MEASUR	EMENTS
PENETRATIO DISTANCE ( 14 41 75 100 123		ROSS-SECT AREA (MM**2) 110 291	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23	21 31 33 37 41 43
300	: 		I 28 I 32 I 37 I 42 I 46 I 51	45 46 47 48 49 49
± 250 −			I 56 I 60 I 65 I 70	48 47 46 45
ON D			T 74 I 79 I 84 I 89	43 40 38 36
150 H			I 93 I 98 I 103 I 108	33 31 29 26
100 H		-	I 112 I 117 I 122 I 126	23 21 19 17
50			I 131 I 136 I 140 I 145 I 150	15 13 12 12
- 1. O	CAVITY PROF	50 100	I 154 I 159 I 164	11 10 10 10 10
		]	173 1 178 1 182 1 187	10 10 9 8 7
٠.		1 1 1	192 197 1201 1206	7 6 5 5 4
		736 j	I 210	2

ROUND NUMBER = 31 PROJECTILE MASS (GM) = 7.128

PROJECTILE TYPE = W=W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) = 499.08

PROJECTILE DIAMETER (CM) = 0.907

PROJECT	TILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRA Distand	ATION CE (MM)	PRESENTED AREA (MM++2)	CROSS=SECT AREA (MM++2)	I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM
		. 0	0	I O	45
Į.		0	0	1 4	50
C .	•	0	0	1 9	53
0		0	0	I 14	55
ι	,	U	. 0	I 18	57
				I 23 I 28	58 59
			•	1 32	59
		•		I 37	59
300			e .	1 42	58
200				1 46	58
				1 51	57
				I 56	56
i 250				I 60	55
200 200 200 150				I 65	54
				I 70	52
<del>_</del>	ĺ			1 74	50
ີ 200	<b>-</b>		-	1 79	4.8
<u> </u>				I 83	45
$\supset$				1 88	43
	Ì		-	I 93	40
150		/ \	7	I 97	37 34
		/ \		I 102 I 107	31
				1 111	28
J 100	L			I 116	26
			, 7	1 121	23
	!			I 123	22
-	İ	/		I 126	21
50	<u> </u>		\	1 130	19
				I 135	17
				I 140	15
	\	,		I 144	13
0	L		4	I 149	11
_	100 -	-50 0	(n) 1 (d) (	1 153	9
		VITY PROF		I 158	7
	CH	ATTL LIVOL		I 162	7
			•	I 164 I 165	5 4

ROUND NUMBER -- 328

PROJECTILE DIAMETER (CM) -- 9.068

PROJECTILE MASS (GM) -- 10.238

PROJECTILE TYPE --W-W, JHP, .38 SPEC PROJECTILE VELOCITY (MPS) --210.31

PR(	DJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
	NETRATION STANCE (MM) -14 2 25 49 74 127	PRESENTED AREA (MM**2) 60 50 60 60 68 62 70	AREA (MM**2) 60 50 60 61 68 63 71	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32 I 37 I 41	CAVITY RADIUS (MM) 12 14 15 16 16 18 19 20 21	
	300			I 46 I 51 I 55 I 60	22 22 22 22 22	
DEPTH	250		-	I 64 I 69 I 74 I 78 I 83	22 21 21 20 19	
	200		_	I 88 I 92 I 97 I 101	19 18 17 17	
TRATION	150		-	I 106 I 111 I 115 I 120 I 125	16 15 15 14 13	
PENE	100			I 129 I 134 I 139 I 143	13 13 13 13	
	50		,	I 148 I 152 I 157 I 162 I 166	13 13 13 13 13	
	-100	-50 0 AVITY PRØF		171 176 180 185 189	13 12 13 13 13	
			738	1 194 1 199 1 203 1 208 1 213	13 13 13 13 13	

### ROUND NUMBER 328 CONTINUED

I	222	13
I	226	13
I	231	13
I	236	13
I	240	13
Ī	245	13
Ī	250	12
Ī	254	12
Ī	259	13
i	264	13
i	268	13
I	273	13
I	277	13
1	282	13
I	287	13
I	291	13
Ţ	296	12
I	301	12
Į	305	ĩĩ
Ī	310	10
1	315	9

PROJECTILE TYPE -W-W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -218.01

PROJECTILE DIAMETER (CM) - 0.907

PROJECTILE DEFORMATION			CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 0 0 0 0 0		S=SECT I (MM**2) I 0 I 0 I 0 I 0 I 1 I	PENETRATION DISTANCE (MM) 0 4 9 13 18 22 27 32	13 14 15 15 16 16
	SO O SO VITY PROFILE		32 344 450 550 667 783 997 106 1115 1224 133 148 148 157 166 175 189 199 199 203	16 16 16 16 15 15 15 14 14 14 14 14 14 14 14 17 10 10 10 10 10 10 10 10 10 10 10 10 10
	. •	740 I	208 212 217	8 8 8

1	222	8
1	227	8
I	231	7
1	236	7
I	240	7
Ī	245	7
1	250	6
Ī	254	6
Ĭ	259	6
I	263	- 5
1	268	5
1	273	5
Ī	277	5
t	282	5
1	286	4
1	288	2
I	0	Ō
7	•	^

PROJECTILE TYPE --W-W, JHP, .38 SPEC PROJECTILE VELOCITY (MPS) --267.00

PROJECTILE DIAMETER (CM) -- 9.068

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	******
PENETRATION DISTANCE (MM) -10 9 35 62 88 138 146	PRESENTED AREA (MM**2) 73 140 123 127 129 144 120	AREA (MM**2) 73 140 123 127 131 144	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32 I 36	CAVITY RADIUS (MM) 17 21 23 25 27 29 31 33 35	
	o c s'ITY PRØFI	L	152 156 161 166 170 175 179 184 189 193 198 203 207	36 37 37 38 37 37 36 35 35 35 32 32 31 29 28 26 25 23 22 21 20 20 19 18 17 16 16 15 14 14 13 12	

## ROUND NUMBER 327 CONTINUED

I	221	11
I	225	11
I	230	10
I	235	10
I	240	9
I	244	9
Ī	249	9
Ŧ	253	8
1	258	8
I	263	8
I	267	7
Į	272	7
I	276	7
I	281	6
1	285	7
I	290	6
Ī	295	6
Ţ	300	6
I	304	6
I	309	5
I	313	5
Į	318	4
Ţ	322	4
Į		

PROJECTILE TYPE -W-W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -277.89

PROJECTILE DIAMETER (CH) = 0.907

PROJECTILE DE	FORMATION		I CAVITY MEASURE	EMENTS
PENETRATION DISTANCE (MM)	PRESENTED CR AREA (MM**2) AR 0	088-SECT EA (MM*+2) 0	I I PENETRATION I DISTANCE (MM) I O	CAVITY RADIUS(MM) 30
0	. 0	0	I 5	32
0	0 .	0	1 10	34
0 0	0	0	I 16 I 21	35 76
7,4	U	U	I 21 I 26	36 37
			I 32	38
			1 37	38
			I 43	38
			1 48	38
300			I 54	38
		i	1 59	3.5
	<b>\</b> \.	ļ	I 65	38
<u>∓</u> 250 —			I 70 I 76	37
<u> </u>			I 81	36 35
	)	•	1 87	33
	/ \		I 92	32
200 -	/ \	-	I 98	31
Z O			I 103	29
			1 109	28
			1 114	27
150 - LECT R. H. H. H. H. H. H. H. H. H. H. H. H. H.			I 120	26
			I 125 I 130	25 24
<u> </u>			I 136	23
当 188			1 142	22
			1 147	21
Δ.		,	I 153	20
50 -			158	19
00		1	163	18
			1 169	17
			I 174 I 180	17
c L			1 185	16 15
-100 -	-50 0 50	100	191	14
	VITY PROFIL		197	13
CH	VIII LINGIII.	·	202	12
		1		12
		1		11
		1	- <del>-</del> ·	1.0
				9
		1		9
•		j	l 235 l 240	9 9
		. 1	246	9
				8
		1		8 7
		744		

### ROUND NUMBER 26 CONTINUED

ı	262	7
I	268	7
Ţ	273	6
I	279	5
Ī	283	2
i	n	ŋ

PROJECTILE TYPE -W-W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -289,48

PROJECTILE DIAMETER (CM) - 0.907

PF	ROJECTILE D	EFORMATION .		I CAVITY MEASUR	EMENTS
	ENETRATION ISTANCE (MM	) AREA (MM**2) A	REA (MM**2)	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS(MM)
	0	0	0	1 0	42
	0	o -	0	7	43
	0	0	0	1 13	44
	0	0	Ö	1 50	45
	0	O	0	1 27	46
				1 33	46
				1 40	46
				1 47	46
				1 54	46
	200			I 61	45
•	300			1 68	44
		1		I 75	44
	į	)		81	44
Ι,	250	1		1 88	43
FPTH S				95	42
<u> </u>		1		102	41
4		). \		108	40
	200	/		115	38
	200	/		122	36
Z S		/		129	35
			•	136	35
	150	1		143	33
· F	150 -		7 !	149	32
2	,			156	31
PENE I KH I		/	1 .	163	30
ئىد	100	/		170	29
Z ·	106		7 :	177	28
ب		\		184	27
<u></u>			1	191	25
	50			197	24
	50 F		7 1	204	23
			1	211	22
			1	218	21
	o L	<u> </u>		224	21
				231	20
	-100 -	50 0 50	100 1	238	20
	CAV	/ITY PROFIL	F I	245	19
	O.11		1	252	19
			1	258	19
			I	265	18
			1	272	18
			I	279	17
			Ī	286	16
			Ţ	293	16
	*.		i		14
			i	306	14
			Ī		14
			746		13

## ROUND NUMBER 25 CONTINUED

ľ	326	13
I	333	13
t	340	12
1	3 <i>47</i>	10
t	354	9
ľ	361	8
t	367	A
Ī	374	8
Ī	381	4
Ī	384	5
i	ń	0
ľ	n	0

PROJECTILE TYPE ----- JHP, .38 SPEC PROJECTILE VELOCITY (MPS) --291.39

PROJECTILE DIAMETER (CM) -- 9,068

PROJECTI	LE DEFO	RHATION		I CAVITY MEASUR	EMENTS	
PENETRAT: DISTANCE -8 13 43 69 97 152 160	ION PE (MM) AE	RESENTED REA (MM**2) 85 96 103 99 98 96	CROSS-SECT AREA (MM**2) 86 98 103 100 101 106 116	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 22 I 27 I 31 I 36	CAVITY RADIUS(MM) 20 22 24 26 28 31 32 34	
300 <sub>[</sub>		П		I 41 I 45 I 50 I 54 I 58	38 39 39 39 39	
Н Б. Т. 250	<del></del>		-	I 63 I 68 I 72 I 77 I 81	38 37 36 36 36	
200 ND1 150				I 86 I 90 I 95 I 99 I 104 I 109	35 35 34 33 33 33	
EN 190	_			I 113 I 117 I 122 I 126 I 131	32 31 28 28 28	,
50	-			I 136 I 140 I 145 I 149 I 154	26 25 24 23 22	
-1c		TY PROF		I 158 I 163 I 167 I 172 I 176	22 21 20 20 19	
	,			I 181 I 185 I 190 I 195	17 18 17 16	
			748	1 199 1 204 1 208 1 213	15 15 14 13	

#### ROUND NUMBER 300 CONTINUES

I	217	13
I	555	13
I	226	12
t	231	11
I	235	1 1
1	240	10
I	244	10
I	249	10
I	254	9
I	25R	9
Ţ	263	8
1	267	8
1	272	7
I	276	7
Ţ	281	7
1	285	5
I	290	6
1	294	6
Ī	299	5
I	303	5
I	30R	5
I	312	5
I	317	4
Ť		

PROJECTILE TYPE -W-W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -302.07

PROJECTILE DIAMETER (CM) - 0.907

PROJE	ECTILE DE	FORMATION		I CAVITY MEASUR!	EMENTS
PENET DISTA	TRATION ANGE (MM) O O O O	PRESENTED AREA (MM++2) 0 0 0 0 0	CROSS-SECT AREA (MM++2) 0 0 0	PENETRATION DISTANCE (MM)  1 0 1 5 1 10. 1 15 1 21 1 26 1 31 1 37	CAVITY RADIUS(MM 21 24 27 29 32 34 37 38
300				1 42 1 47 1 53 1 58	40 40 41 41
工 上 G			_	1 63 1 69 1 74 1 79	40 40 40 39
ON 500			+	1 85 1 90 1 95 1 101	39 38 36 36
			-	1 106 1 111 1 117 1 122	34 33 32 31
150 TRH 100				1 128 I 133 I 138 I 144	30 30 29 28
ω. 50				I 149 I 154 I 160 I 165	27 26 25 24
З	-108 -5			I 170 I 176 I 181 I 186	24 22 21 21
	CAV	ITY PROFI	L.t.	I 192 I 197 I 202 I 208	19 19 18 17
				I 213 I 218 I 224 I 229	16 15 15
	·.			1 234 I 240 I 245 I 250	14 13 12 12

1	256	1 1
I	261	1.0
Ţ	266	10
1	272	10
Ī	271	9
1	283	9
Ţ	288	8
Ī	293	8
I	298	7
Ī	304	7
1	309	7
1	315	7
1	320	5
Ī	325	3
Ţ	327	1

PROJECTILE TYPE -W-W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -302.69

PROJECTILE DIAMETER (CM) - 0.907

PROJECTILE DE	FORMATION		I CAVITY MEASUR!	EMENTS
PENETRATION DISTANCE (MM)	PRESENTED AREA (MM++2)	CROSS-SECT AREA (MM*+2)	I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM
0	0	0	I U	21
Q	0	0	1 4	23
0	0	. 0	I 9	25
0	0	0	1 13	25
0	ņ	0	1 18	26
			1 23	27
			1 27	27
			1 32	27
			1 36	28
30C			1 41	28
300	1 1 1		I 46	28
			i 50	28
			I 55	27
I 250 -			I 59	27
<b> </b>		į.	I 64	27
<u>م.</u> ا	$\wedge$		1 69	26
니			1 73	26
C 200 -		4	I 78	26
	1		1 83	25
N N		Ì	1 87	24
		-	I 92	23
⊢ 150 <del> </del>		-	I 97	22
I .			I 101	22
<u>ac</u>			I 105	20
<u> </u>	/		1 110	20
N 100		-	I 115	19
	/		I 119	1.8
<u>n.</u>			I 124	1.7
<u> </u>			1 129	17
50 <del>-</del>			1 133	16
			1 138	15
			1 143	15.
			I 147	1 4
ل L			1 152	14
	50 0 5	0 100	I 156	13
			I 161	13
(H)	/ITY PROFI	L.C.	I 165	13
			1 170	12
			1 175	12
			I 18n	1.1
			1 184	îî
			1 189	ĨO
			1 193	- g
			I 198	9
•			1 505	Ŕ
			1 207	8
			1 212	6
		752	* 67 2	v

I	221	5
I	226	3
1	229	1

PROJECTILE DIAMETER (CM) = 0.907

PROJECTILE DE	FORMATION		I CAVITY MEASURE	EMENTS
	PRESENTED AREA (MM++2)	AREA (MM++2)	I I PENETRATION I DISTANCE (MM)	
0	. 0		1 0	22
0	0	~	I 4	23 .
0	0	0	1 9	25
0 n	0 0	0 0	I 14	25
l j	U	Ų	I 18 I 23	28 30
			I 27	35
			I 32	34
			I 37	36
			I 42	36
300		T	I 46	37
	, V,		I 51	37
j			1 55	38
<del>-</del>	11		I 60	38
王 250 上	/ \		i 65	38
۵_ ا	/ 1	į	I 60	38
لنا	) \		I 74	38
200			I 79	38
	/ \		I 83	38
N O			1 88	37
	/ \		I 93	37
<u>⊢</u> : 150 ⊢		4	97	36
CE			102	35
Y 108 ←			I 107 I 111	35 34
			I 116	33
岁 100 卜		<b>—</b> →	121	32
		· ·	125	30
<u>a</u> .		;	130	29
				27
5U <del> </del>				26
!		1	144	24
		1	149	22
c L	1 \ 1 \ 1		153	20
			158	19
		30 100 i	163	17
CA	VITY PROF	I L. E	167	16
ı		j	172	15
		1		14
		3	181	1.3
			185	13
			191	12
			195	12
•		j	200	11
			204 1 209	11 10
		1	214	10
		754		9
		/54	i Bata	7

I	<b>2</b> 23	9
Ī	228	9
I	233	8
1	237	a
f	242	7
1	247	6
Ī	251	6
I	256	5
Ţ	261	5
Ī	265	4
Ī	270	4
Ī	274	4
Ţ	279	4
ī	284	3
1	288	- 3
Ī	292	1
1	n	0
1	(1	٥

PROJECTILE TYPE -W-W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -325.82

PROJECTILE DIAMETER (CM) = 0.907

PROJECTILE DEFORMATION		I CAVITY MEASUREMENTS	
	CROSS-SECT Area (MM++2)	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS(MM)
0 0	0	1 0	21
0 0	0	I 4	23
0 0	0	I 8	25
0 0	0	I 13	26
0 0	Λ	1 18	28
		1 22	29
		1 27	31
200		I 31	32 34
		I 36 I 41	3 <b>5</b>
		I 45	35 35
		I 50	36
I 250 -	=	1 54	36
<u> </u>		1 59	36
		1 64	35
		1 68	35
200 - / /	-	I 73	34
		1 77	34
	•	1 82	34
H 150 H	_	I 87	33
- 150 - / \	•	I 91	32
<u>~</u>	i	1 96	31
<b>├</b>		1 100	31
180 -	$\rightarrow$	1 105	30
		I 110	29
<u>u</u> .		I 114	27
	!	I 119	26
50 ├	$\dashv$	1 123	25
		I 128 I 133	24 23
		I 137	21
	:	I 142	20
g L		I 146	19
-1 <b>0</b> 0 -50 0 50	100	Î 151	18
CAVITY PROFIL	F	I 155	15
CHVIII IROTI	-, <b>-</b> -	I 160	16
		I 165	15
		1 169	1 4
		1 174	13
		1 178	12
		I 183	1.0
		I 188	10
		1 192	9
		1 197	8
		1 202	8
		I 206	7
		I 211	7
	756	1 215	5

I	550	5
Ī	224	5
I	229	5
Ţ	234	5
1	238	6
I	243	7
I	247	5
Ţ	252	2
ŧ		n

PROJECTILE TYPE ----- JHP, .38 SPEC PROJECTILE VELOCITY (MPS) --334.67

	I CAVITY MEASUREMENTS
PENETRATION PRESENTED CROSS DISTANCE (MM) AREA (MM**2) AREA  =6 100 10 17 211 21 47 161 16 75 178 18 103 173 18 153 153 173 160 162 18	MM**2) I DISTANCE (MM) RADIUS(MM)  I 0 25 I 4 30 I 0 34 I 13 37 I 18 39 I 22 41
300	1       36       47         1       40       47         1       40       48         1       50       50         1       59       50         1       59       50         1       68       50         1       77       51         1       86       51         1       90       48         1       104       47         1       108       46         1       113       42         1       117       39         1       122       38         1       126       37         1       131       38         1       126       37         1       135       33         1       140       35         1       149       32         1       154       31         1       154       31         1       163       27         1       167       26         1       174       24         1       185       22         1       190       20

## ROUND NUMBER 299 CONTINUED

I	217	1.5
1	222	1 4
I	226	12
I	231	12
1	235	11
1	240	10
1	245	9
I	249	Ą
I	254	В
1	25H	Я
I	263	7
Ĩ	267	7
Ī	272	7
I	276	7
Ţ	281	7
I	285	7
I	290	6
1	294	6
Ī	296	6
Ī	200	5
Ţ		

PROJECTILE TYPE -W-W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -342.65

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION	PRESENTED CREATER (MM++2) ARE		I PENETRATION	CAVITY
			I DISTANCE (MM)	
0	0		I n	29
	0:	•	1 4	23
0	0 .	••	1 0	29
0	0	ņ	1 14	34
0	n.		I 18	38
· v	•		1 23	41
			1 27	43
			I 32	44
			1 37	4.5
308 L	T		I 42	4.5
			1 46	47
			Ī 51	47
_			I 56	47
<u> </u>		$\neg$	1 60	46
_	/ \ .		1 65	46
-	1		I 70	46
			I 74	4.5
200 <del> </del>	/	7	1 79	45
2	/		1 84	44
<u>z</u>	/	1	I 88	4.3
<del>-</del> ' (	/	İ	1 93	42
_ 150 -	/		I 98	41
	/		I 105	39
<u> </u>	/	Ţ	1 (07	38
			1 112	37
188		7	I 116	36
للد			121	35
	1	į į	1 125	33
				32
50 🗕	1	7	1 135	30
			140	20
			144	27
		1	149	25
ე			154	24
-100 -	-50 0 50	100	159	23
	• •	•	163	55
LH	vity prøfile	·=	168	21
			172	20
		j		
		, 1	182	19 18
				17
•		1		16
		-	196	15
		1	200	1 4
		]	205	1 4
		]	210	13
		760		12
		760	205	5

I	224	1.1
I	228	<b>1</b> 0
Ĭ	233	10
1	238	8
I	242	8
I	247	7
1	252	4
I	253	2
T	n	Λ

PROJECTILE TYPE -W-W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -344.63
PROJECTILE DIAMETER (CM) - 0.907

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM)	PRESENTED (	CROSS=SECT	I I PENETRATION I DISTANCE (MM)	CAVITY
0	0	0	1 0	23
0	0	0	Ţ A	25
0	. 0		1 9	2.8
0	0	0	1 13	31
0	0	0	I 18	34
			1 55	37
			1 27	-5 B
	Ÿ		1 32	3.9
			1 36	41
			I 41	41
300			1 46	41
			1 50	4.0
			1 55	40
İ	/ )		1 59	4.0
<u> 250                                   </u>	/ \		1 64	39
-	/ \	'	1 69	38
ا لـ	/	<b>;</b>	7.3	37
<b>7</b>	\		1 78	36
288 F		$\dashv$	1 83	36
5			I 87	- 35
0			1 92	35
<b>→</b>			1 96	35
150		$\dashv$	1 101	35 75
-			I 106	35
<u> </u>			1 110	35
100		į	1 115	34
<u> 100                                  </u>			1 120	34
ا ل			1 124	33
			I 129 I 134	32
E0			1 138	32
50		7		31
			1 143 1 147	24 29
			I 152	
0	1 / 1	<u>.</u>	J 157	25 24
			1 161	24 23
	- <b>5</b> 0 0 50	100	1 166	21
CA	VITÝ PROFI	l F	171	20
			1 175	19
			1 180	18
			I 184	17
	•		I 189	17
			I 194	17
			I 198	17
			I 203	16
			I 208	16
			1 212	15
			1 217	13
		762		1.74

I	221	1 4
1	225	13
I	231	12
1	235	11
I	240	10
I	244	10
I	249	9
Ī	254	8
1	259	8
Ī	263	7
1	268	7
Ī	272	6
Ī	277	6
Ţ	281	5
Ţ	286	. 2

PROJECTILE MASS (GM)-10.238

PROJECTILE TYPE -W+W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -366.65

PROJECTILE PIAMETER (CM) = 0.907

PROJECTILE DEFORMATION		CAVITY MEASURE	EMENTS
	SS=SECT	PENETRATION DISTANCE (MM)	CAVITY RADIUS(MM)
0 . 0	0 1	n	23
0 0	u 1	4	25
0 0	0 1	9	28
n ņ	0 1	1.3	29
0 0	0 1	18	31
•	1	22	33
	7	27	34
	1	31	36
•	1	36	36
	1	4 1	37
	I	45	37
	1 t	50	37
300 F F F T	1	54	37
	1	50	37
	T	6.4	37
T	<u> </u>	5.8	37
王 250	1	73	3 <i>7</i>
Δ.	1	17	36
	1	8.2	36
	- <del>-</del> 1	ጻዳ	36
(-2 500 )	' I	91	35
Z / \	1	QA	34
		100	3 3
F-1	<del></del> 1	105	33
₩ 150 <del> </del>		109	32
œ \	Ī	114	32
<u> </u>	ĭ	119	31
<u>H</u> 100	- I	123	30
Z 100	Ţ	128	30
النا ا	1	132	5.9
<u>(</u>		137	28
50	<b>→</b> 1	141	28
36	ī	145	27
	I	151	25
	I	155	25
3 1 1 1 1 1 1	I	160	24
- m /2	100 <b>i</b>	164	23
		169	22
CAVITY PROFILE	- 1	173	20
	1	178	19
	i	183	17
	Ĵ	187	16
	Ī	192	16
	Ī	196	15
	Ī	201	14
	i	205	13
	i	210	13
	764 1	215	12
	704 . *	w	£ 1-

Ī	219	11
Ī	224	10
Ī.	228	10
Ť	233	9
1	237	9
Ĭ	242	8
I	246	8
1	251	8
1	256	8
1	260	7
Ī	265	6
I	269	6
Ī	274	4
i	275	1
Ť	N	ñ

Andrew Company Company Company Company Company Company Company Company Company Company Company Company Company

PROJECTILE DIAMETE	R (CM) ## 9.058
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PROJECTILE DEFORMATION	I CAVITY MEASUREMENTS
PENETRATION PRESENTED CROSS-SECT DISTANCE (MM) AREA (MM++2) AREA (MM++2) +3 127 128 22 255 255	I PENETRATION CAVITY
<b>87</b> 163 172	1 9 42
67 139 143 119 159 166	1 13 45 1 18 49
176 170 171	Î 23 51
184 155 158	I 27 · 53
	I 32 55
	I 36 57 I 41 59
	1 45 60
300	I 50 61
	I 54 61
	1 59 61 1 64 61
王 250 — / / —	I 68 61
	1 73 60
LL \	1 77 60
200	1 82 58 1 86 57
1	I 91 55
NO \	1 96 53
→ - 150	I 100 51
☐ 150 — ( ) —	I 105 49 I 109 47
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	T 114 46
Li \	1 118 44
Z 100 F	1 123 41
	I 128 39 I 132 41
	I 137 41
50   \	I 141 41
	1 146 41
**	I 150 39 I 155 37
0 1 1	I 159 35
-100 -50 0 50 100	I 164 34
CAVITY PROFILE	1 169 34
1	1 173 34 I 178 32
	1 182 32
	I 187 32
	I 191 31
	I 195 31
	I 201 29 I 205 29
	1 210 27
766	1 214 26

#### ROUND NUMBER 298 CONTINUED

I	219	24
Ţ	223	23
I	228	21
Ī	233	50
I	237	19
I	242	17
I	246	16
1	251	15
1	256	14
I	260	1.3
1	265	13
Ī	269	12
I	274	11
İ	27 B	11
I	283	1.0
1	287	9
Ţ	292	Q
Ţ	297	8
1	301	7
Ī	306	7
I	311	5
I	315	5
Ĭ	320	6
I		

A SEE SECTION OF SECTION

PROJECTILE TYPE --W-W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) --389.23

ROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) -3 22 58 88 122 186 194	PRESENTED AREA (MM**2) 112 239 141 141 129 130 144	AREA (MM**2)	PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 22 I 27 I 32	36 40 43 47 49 51 53
368		T ]	32 36 41 45 50 54 59 63 68	54 55 56 56 57 57 57 56 56
ຄນນ —		-	73 77 82 86 91 96 100	55 54 52 50 49 48 46
150			109 114 118 123 127 132	43 40 39 38 38 37 36 35
	50 0 5	3 195		34 32 31 30 29 29 27
CAV	'ITY PROFI	1.E II II	173 178 182 187 191 196 200 205	27 26 25 25 25 24 22 22

# ROUND NUMBER 290 CONTINUED

I	219	20
I	223	21
1	228	20
I	232	20
I	237	20
Į	242	19
1	246	19
Ţ	251	18
I	255	17
I	260	17
1	264	16
I	269	15
I	274	14
I	278	14
Ĩ	283	13
I	287	13
Ī	292	12
I	297	11
I	301	10
I	306	10
Ţ	310	9
Ĭ	315	8
I	319	8

PROJECTILE TYPE -w-w, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -407.16 PROJECTILE DIAMETER (CM) - 0.907

PROJECTILE DEFORMAT	ION		CAVITY MEASURE	EMENTS
PENETRATION PRESE DISTANCE (MM) AREA O O O O	(MM**2) AREA 0 0 0	-SECT I (MM**2) I 0 I 0 I 0 I 0 I 0 I 0 I 0 I 0 I 0 I		CAVITY RADIUS (MM 35 39 44 48 51
385 L	T (	I I I I I I I I I I I I I I I I I I I	28 33 39 44 50 56 61	54 57 60 62 64 66 66
T 25.0  - C 25.0			67 73 78 84 90 95 101	67 67 66 65 63 62 60 58
E 150 L			112 118 123 129 135 141 146 152	56 54 52 50 49 46 45
60 L 0 L -100 -50	1 A	- i I I I I I I I	157 163 168 174 180 185 191	42 40 39 38 37 36 35 34
CAVITY .!	PROFILE	I I I I I	202 208 214 219 225 231 236	33 32 31 30 29 28 27
		I I I 770 I	242 247 253 258 264	25 24 22 21 19

Ī	270	18
Ţ	275	17
Ī	281	16
Ī	287	15
1	292	15
Ī	298	15
ī	304	15
Ī	309	14
Ì	315	14
Ī	321	13
Ī	326	13
Î	332	13
î	337	13
Î	343	12
Ī	349	12
i	354	11
	•	
I	360	10
1	366	1.0
I	371	9
1	377	9
1	383	9

PROJECTILE TYPE -W-W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -408.84

ROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION	PRESENTED AREA (MM*+2)	CROSS-SECT AREA (MM**2)	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS(MM
0	. 0	. 0	1 0	41
0	Ŋ	0	1 5	47
0	0	0	1 12	5 <i>7</i>
n	0	O	I 17	64
0	n	. 0	1 24	70
			1 30	77
	,		1 35	82
	•		1 42	85
			1 48	8 <i>7</i>
300 E		·· <b>r</b> · ····	I 54	89
:	' / ' \	ļ ļ	I 60	90
			I 66	91
<u>.</u>			1 72	91
E 250 H		-	78	91
i			1 84	91
1.1			1 90	90
n			I 96	89
5,00		$\setminus$	1 102	88
<u> </u>	/ ·		1 108	87
			1 114	85
/	/		I 120	83
_ 150 <del> -</del> /		\ \	1 127	80
			1 132	78
- /			1 138	75
1,,,,			1 145	72
ਹੋ 188 ⊢/		4.	I 151	69
ا ب نـ		V	I 157	66
			I 163	64
ნა ⊢ \		i	1 169	61
1315		7	I 175	57
			1 181	54
		/ •	I 187	51
. L	_1		I 193	48
			1 199	45
-108	-50 0	50 100	1 205	43
C.A	VITY PROF	11 F	I 211	41
J . ,	V 4 ( ) ( ) (C.)	1 L L,	1 217	39
		•	I 223	37
			1 229	35
			I 235	35
			I 242	34
			1 248	33
			I 254	32
			I 260	30
			1 266	29
			I 272	28
		772	1 278	27
		112	I 284	25

I	290	25
I	296	23
ŧ	392	21
I	308	20
Ī	314	19
Ţ	320	18
1	32 <i>7</i>	16
I	332	1.6
1	338	15
I	344	14
I	351	12
J	356	12
Ì	363	11
Ţ	369	11
ĭ	374	1.1

PROJECTILE TYPE =W=W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) =459.86 PROJECTILE DIAMETER (CM) = 0.907

PROJECTILE DEFORMATION	I CAVITY MEASUREMENTS
0 0 0 0 0 0 0 0	MM**2) I DISTANCE (MM) RADIUS(MM) I
0 0 0	1 18 48 1 23 50 1 28 51 1 33 52 1 37 52
300	1 42 52 1 47 51 1 51 50 1 56 48 1 61 47
T 250 F	I 65 45 I 70 43 I 75 42 I 79 40 I 84 39 I 89 37
E 150	1 94 36 1 98 35 1 103 34 1 108 33
100 - 100 -	I 117 31 I 122 30 I 127 29 I 131 27 I 136 26
50	I 140 26 I 145 25 I 150 24 I 154 23 I 159 22
-100 -50 0 50 CAVITY PROFILE	100 I 164 22 I 169 21 I 173 21 I 178 20
	I 183 20 I 187 2n I 192 19 I 197 19 I 201 15
	I 206 18 I 211 18 I 216 18 774 I 220 18

I	225	18
Ī	230	19
1	235	18
Ţ	239	17
1	244	17
I	248	16
I	253	16
I	258	17
1	262	1.6
1	267	1.5
Ţ	272	17
I	277	17
I	281	1.7
Ī	286	17
ī	n	n

And the second of the second o

PROJECTILE TYPE -W-W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -467.06

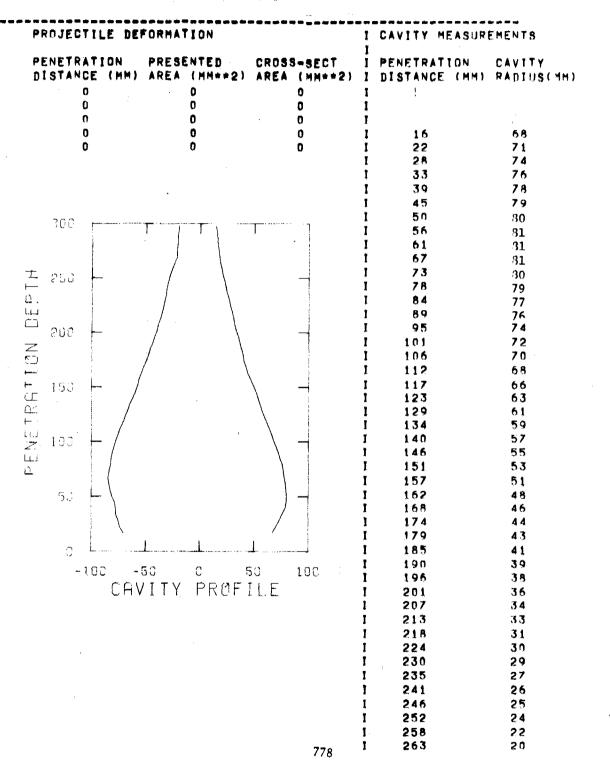
PROJECTILE DIAMETER (CM) - 0.907

PROJECTI	LE DEFORMATION	<b></b>	I CAVITY MEASUR	EMENTS
PENETRAT DISTANCE	ION PRESENTED ( (MM) AREA (MM++2)	CROSS-SECT AREA (MM##2)	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS(MM
n	. 0	0	1 0	26
0	0	0	I 4	31
0	0	0	I 9	34
0	0	Ô	1 13	36
0	0	0	I 18	39
			1 22	41
			I 27	44
	•		1 32	47
300 50	T		I 36 I 41	48
i			1 41 1 45	49 50
		i	1 50	50
			1 54	50
- psu -			I 59	49
			I 64	49
ا ا			1 68	47
200	/	_	73	46
	/ \		I 77	45
	/		1 82	43
		i	1 87	42
+ 150 F	\	· <del>-</del>	7 91	4.0
- :		1	1 96	39
<u>.</u>	/		I 100	37
	/	¥	1 105	36
d 100 - H	/	7	1 109	35
i i	/	* !	1 114	34
ļ			1 119	32
	[		I 123	32
50 <del> </del>	\		1 128	31
i			I 132 I 137	30
			I 137 I 141	29 29
j l			I 146	28
		4.70.15	i 150	27
100		108	I 155	27
	CAVITY PROFIL	., <b>E</b> .	1 159	26
i	-		I 164	26
1			1 159	26
			I 173	25
			I 178	24
			I 182	24
			1 187	22
			I 192	51
			I 196	20
			I 201	19
			1 206	18
			1 210	18
		776	I 215	17

ROUND	NUMBER	17	CONT	INUED
K (7 L) P 11	14 C) (1) (1) (2) (1)	1/	CUINT	LNUFD

I	219	1.6
I	224	15
I	228	1. 5
I	233	15
1	237	14
1	242	14
I	247	13
Ī	251	13
1	256	12
I	260	12
Ţ	265	12
ĭ	270	11
I	274	10
1	279	9
I	283	Ą
Ī	288	7
I	292	2
1	n	n

PROJECTILE TYPE -W-W, JHP, .357 MAS PROJECTILE VELOCITY (MPS) -486.87



RUUNU 1401112EN 23 GU144 LIVUE I	ROUND	NUMBER	15 0	CONT	INUED
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1	269	19
Ţ	275	18
I	280	18
I	286	17
1	291	17
1	29 <i>7</i>	16
1	302	16
I	30 B	15
Ī	314	1 4
Ţ	319	12
I	325	12
Ţ	331	11
I	336	9
Ĭ	342	9
ī	348	9
I	353	7
1	357	1
I	n	n

PROJECTILE TYPE -W-W, JHP, .357 MAG PROJECTILE VELOCITY (MPS) -532.95
PROJECTILE DIAMETER (CM) - 0.907

PROJECTILE DEF	ORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 0 0 0 0 0	PRESENTED CAREA (MM**2) A  0  0  0  0  0  0	ROSS#SECT (REA (MM**2) 0 0 0 0	I PENETRATION I DISTANCE (MM) I 0 I 5 I 9 I 14 I 19 I 24	CAVITY RADIUS (MM) 51 59 64 68 70 72
088			I 29 I 34 I 39 I 44 I 49 I 54 I 59	73 73 73 73 75 71
NO 2008 -			1 63 1 68 1 73 1 78 1 83 1 88 1 93 1 98	71 71 70 69 66 65 64 64
150 - 150 -			I 103 I 108 I 113 I 118 I 123 I 128 I 133 I 137	63 61 60 58 57 55 53
50 -100 -50	0 50	100	1 142 1 147 1 152 1 157 1 162 1 167 1 172	51 49 48 47 45 44
CAVI		-	I 177 I 182 I 187 I 192 I 197 I 201 I 206 I 211	40 38 36 35 33 31 29 27
•		780	216 1 221 1 226 1 231	25 23 21 20

1	236	1.8
J	241	1.6
1	246	15
I	251	1 4
1	256	13
Ī	261	12
1	265	1 1
Ì	271	10
I	275	q
ĭ	280	3
1	285	7
1	290	5
1	295	6
I	<b>30</b> 0	6
1	305	4
1	307	1
I	ń	n
Ĭ	ņ	n

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM) -1 29 69 107 147 228 240	PRESENTED AREA (MM**2) 107 67 79 74 86 66 70	CROSS-SECT AREA (MM**2) 107 68 83 75 87 68 70	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 22 I 27 I 32	31 34 36 38 40 41 43	
300 <u>T</u> 250			I 36 I 41 I 45 I 50 I 54 I 59 I 64 I 68 I 73 I 77 I 82	44 44 44 44 43 42 41 41 39	
NETRATION BE			I 87 I 91 I 96 I 100 I 105 I 110 I 114 I 119 I 123	37 38 37 36 35 36 36 36 35	
50	-5c 8	50 100 *	I 128 I 133 I 137 I 142 I 146 I 151 I 155 I 160 I 164	32 32 31 30 30 31 30 29	
-100 CA	-sc 8 VITY PROF		I 169 I 174 I 178 I 183 I 187 I 192 I 196 I 201 I 206 I 210 I 215	29 29 28 27 26 26 26 25 24	

PAUNO NUMBER 200 CONTINUES

1	219	24
I	224	23
I	229	22
Ī	233	22
I	238	21
I	243	21
I	247	21
Ī	252	20
Ĭ	256	20
I	261	19
1	265	18
Ĭ	270	18
I	275	18
I	279	17
ſ	284	16
I	288	16
1	293	16
1	29 <b>7</b>	15
I	302	13
I	307	12
Ĭ	311	11
I	316	11
Ĭ	320	11
Ī	325	11
I	330	11
1		

PROJECTILE TYPE --W-W, JSP, .38 SPEC PROJECTILE VELOCITY (MPS) --235.61

 PRO	J ECT I	LE DEI	FORMATION		I CAVITY MEAS	UREMENTS	
	ETRAT; TANCE -11 7 34 60 90 153 163		PRESENTED AREA (MM**2) 68 55 68 59 70 61	CROSS-SECT AREA (MM**2) 68 55 68 59 70 62 61	I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32 I 37	CAVITY M) RADIUS (MM) 15 17 18 20 21 22 22 23 23 23	
	300		<u> </u>	<u> </u>	I 41 I 46 I 50 I 55 I 60	22 22 22 22 22	
HLA	250				I 64 I 69 I 74 I 78	22 22 22 22 22	
ON DE	200			· 	1 83 1 88 1 92 1 97	21 20 20 21	
RAT TU	150	-		<del>,</del>	I 101 I 106 I 111 I 115	21 20 20 20 20	
PENET	100	_			I 120 I 125 I 129 I 134	18 17 17 17	
12.	50	-		_	I 138 I 143 I 148 I 152	16 16 16 15	
	0 - 1	L oc	-50, 0	50 100	1 157 1 162 1 166 1 171	15 15 14 14	
		, C F	NVITY PRØ	FILE.	I 176 I 180 I 185	14 14 14	
					I 189 I 194 I 199 I 203 I 208	13 13 14 14 13	
				784	I 212 I 217	13 12	•

# ROUND NUMBER 320 CONTINUED

I	222	13
I	226	12
1	231	12
1	236	11
1	240	11
1	245	10
I	250	10
I	254	10
Ī	259	9
Ī	263	9
Ī	268	9
Ĩ	273	9
Ī	277	8
Ī	282	8
Ĭ	287	7
ī	291	7
Ī	296	7
î	301	6
î	305	6
Ī	310	5
ī	314	5
ł	314	2

PROJECTILE TYPE --W-W, JSP, .38 SPEC PROJECTILE VELOCITY (MPS) --300.53

PROJECTILE DEFORMATI	ON	I CAVIT	Y MEASUREMENTS	
PENETRATION PRESENDISTANCE (MM) AREA	MM++2) AREA . 6 . 6 . 6 . 6 . 6 . 6	(MM**2)   DISTA 51       59	8 29 2 31 7 33 2 34	(MM)
300	o so PROFILE	I 44 1 1 5 1 1 5 1 1 1 1 1 1 1 1 1 1 1 1	1 35 5 35 6 35 6 35 6 37 7 31 8 33 8 33 8 33 8 33 7 31 2 31 7 30 1 30 6 29 0 27 5 27 9 26 4 25 9 25 8 25 7 25 1 24 6 24 0 23 5 25 1 24 6 24 0 23 5 25 1 24 6 24 0 23 1 21 7 20 2 19 6 18 1 18 1 7	

## ROUND NUMBER 319 CONTINUED

I	219	16
I	224	16
I	228	15
I	233	15
1	237	14
I	242	14
I	246	14
1	251	13
I	255	13
I	260	12
I	265	12
1	269	12
I	274	12
I	278	11
1	283	11
Ī	288	11
Ī	292	10
Ĩ	297	10
Ī	302	9
Ī	306	9
ī	311	8
Ī	315	8
Ī		_

PROJECTILE TYPE --W-W, JSP, .38 SPEC PROJECTILE VELOCITY (MPS) --348.39

-	PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
	PENETRATION DISTANCE (MM) -8 19 54 92 130 21J 222	PRESENTED AREA (MM**2) 80 112 72 63 70 62 60	AREA (MM**2) 80	PENETRATION I DISTANCE (MM) I 0 I 5 I 9 I 14 I 19 I 23 I 28 I 32 I 37 I 42	CAVITY RADIUS (MM) 25 28 31 32 33 34 35 36 35	
	PENETRATION REPTH  200 - 100 C	-50 0 AVITY PRO	50 100 IF I L.E.	46 1 51 1 55 1 60 1 65 1 67 1 78 1 83 1 88 1 92 1 102 1 106 1 111 1 116 1 120 1 125 1 129 1 138 1 143 1 148 1 152 1 175 1 166 1 171 1 175 1 180 1 185 1 189 1 194 1 199 1 203 1 208 1 213 1 217	34 33 33 32 32 32 32 32 32 32 32 32 32 32	

## RUUND NUMBER 318 CONTINUED

ı	222	17
I	226	16
I	231	16
Ĭ	235	16
I	240	16
I	245	15
I	249	15
1	254	14
I	259	14
ĭ	263	14
I	268	13
I	272	12
I	277	12
Į	281	11
I	286	11
I	291	10
I	296	9
I	300	9
I	305	8
I	309	7
[	314	7
I	319	7
I		

PROJECTILE TYPE --W-W, JSP, .38 SPEC PROJECTILE VELOCITY (MPS) --390.75

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM) 30 66 105 144 222 233	PRESENTED AREA (MM**2) 114 115 67 61 83 68 61	CROSS-SECT AREA (MM**2) 114 115 67 61 83 68	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32	28 31 33 35 36 37 38 38	
200 T 250 C.	T	_	I 37 I 41 I 46 I 50 I 55 I 60 I 64 I 69 I 73 I 78	38 38 37 37 36 36 35 35	
200 - 200 - 25 - 25 - 25 - 25 - 25 - 25		-	I 83 I 87 I 92 I 97 I 101 I 106 I 111 I 115 I 120 I 124	34 33 32 32 31 30 30 30	
60 -100 -		100	I 129 I 134 I 138 I 143 I 148 I 152 I 157 I 162 I 166	31 30 30 29 29 29 29 28 27	
CAV	/ITY PRØF:	790	I 171 I 176 I 180 I 185 I 189 I 194 I 199 I 203 I 208 I 213 I 217	25 24 24 23 23 23 23 23 23 23 22	

#### RUND NUMBER 317 CONTINUED

I	222	21
I	227	20
I	231	19
I	236	19
I	240	18
I	245	17
ſ	250	16
I	254	16
I	259	15
1	266	14
I	268	14
1	273	13
I	277	13
ŧ	282	13
1	287	12
I	291	11
I	296	10
i	301	9
I	305	8
ſ	310	8
1	315	8

RBUND NUMBER - 59

PROJECTILE TYPE -W-W. JSP. .357 MAG PROJECTILE VELOCITY (MPS) -488.46
PROJECTILE DIAMETER (CM) - .907

PROJECTIL	E DEFORMATION	CAVITY HEA SUREMENTS		
PENETRATION STANCE 19 56 98 133 167	ON PRESENTED (MM + 2) 134 241 216 218	CROSS-SECT AREA (MM++2) 134 241 218 219	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 19 I 23 I 28	CAVITY RADIUS (MM) 39 44 53 59 62 64 66
300			1 33 1 38 1 42 1 47	68 69 70 70
∓ 28€ 6-			1 52 1 56 1 61 1 66	71 71 71 71
ON 500			71 1 80 1 85	70 69 69 68
150 E			I 90 I 94 I 99 I 104 I 109	67 66 65 64 62
요 - 편 - 편 - 100			I 113 I 118 I 123 I 128	61 59 58 57
50			I 132 I 137 I 142 I 147	55 54 52 50
. 0	L SU CHVITY PR	50 100 OFILE	I 151 I 156 I 161 I 166	49 48 47 46
Ĺ,	C11 V 1 1 1 1 1 1	OT ILL	I 170 I 175 I 180 I 184	45 44 43 42
			1 189 1 194 1 199 1 204	41 40 38 37
		792	1 208 I 213 I 218 I 223	35 34 32 30

I	227	28
I	232 237	26 24
I I	242 246	23 21
I	251 256	21 20
I	383	<b>78</b>
I I	270 275	18 17
I	280	16
I	284 289	15 14
I I	294 299	13 12
I	304 308	10
1	313	9
1	318 322	8 7

PROJECTILE TYPE -W-W. L. .38 S+W PROJECTILE VELOCITY (MPS) -238.00

PROJECTILE DIAMETER (CH) - .907

PROJECTILE (	EFORMATION	- <del> </del>	I CAVITY MEASUR	<del></del> Ements
PENETRATION Distance (M	PRESENTED  13 AREA (HM**)  51		PENETRATION DISTANCE (MM)	CAVITY RADIUS(MM)
32 59	63 53	6 3 5 3	1 4	11
119	63 60	65 61	1 13	14
			1 23 1 27	15 15
	•		I 32 I 36	15 14
300			1 41 I 46	14
			1 50	14 14
≖ asυ ⊢		4	1 55 1 59	14 15
Δ.			I 64 I 68	15 15
200 L			i 73 I 78	15 15
z			1 82 1 87	14 14
			I 92	14
150 -			1 96 1 101	15 14
<u>0</u> ←	( )		I 105 I 110	14 14
N 100	\ \ \ \.	7	I 115 I 119	15 15
<u>a</u>			1 124 1 128	14 13
20		_	1 133 I 138	13 13
			1 142 1 147	13 13
o I			I 152 I 156	14
-100 C	-sa o AVITY PRO	so 100 JFILE	1 161	14 14
Ĺ	, , , <b>, ,</b> , , , , , , , , , , , , , ,		I 165 I 170	14 14
		•	1 174 I 179	14 15
			I 184 I 188	16 16
			I 193 I 197	16
		70.4	I 202	16 17
		i	1 207 I 211	17 16
			1 216	16

### ROUND NUMBER 54 CONTINUED

1	220	16
1	225	16
}	230	16
1	234	16
1	239	16
I	244	16
Ŧ	248	15
1	253	15
1	257	15
1	262	14
1	267	14
I	271	13
1	276	12
I	281 285	11
1	290	10
1	294	10
I	299	9
i	303 308	8 8
ī	0	0
-	w	~

ROUND NUMBER -

PROJECTILE MASS (GM)- 9.720

PROJECTILE TYPE -W-W. L. .38 LC PROJECTILE VELOCITY (MPS) -247.80

PROJECTILE DIAMETER (CM) -

PENETRATION PRESENTED CROSS-SECT   PENETRATION CAVITY   DISTANCE (MM) RADIUS(MM)   12   12   13   14   12   13   14   12   13   14   14   15   14   15   14   15   15	PROJECTILE DEFORPATION				I CAVITY MEASUREMENTS		
362 552 553 1 49 123 144 121 123 144 123 124 124 125 125 125 125 125 125 125 125 125 125		STANCI		AREA (MM##2)	) AREA (MM++2)	I DISTANCE (MM)	RADIUSEMM
THE TWO IS IN THE PROPRIES IN		34 62		59 52	59 53	4	
1		123		27	29	1 13	13
## 190						I 23 I 28	14
42			v •			1 33	15
H		303					
H 700		. C111		7			
## 150				/		<del>-</del>	
1 770 15 15 15 15 15 15 15 15 15 15 15 15 15	-	21.0		/			
1	<u> </u>	TU C					
1	<u>. D.</u>		i	/ /		1 70	15
84   16   16   16   16   16   17   100   17   11   118   18   18   19   19   19   1	تت	0.30	ĺ	( /			
H 150 - 16 16 16 17 190 1100 17 111 118 17 18 190 190 190 190 190 190 190 190 190 190	_	CUC					
153   16	<u>~</u>						
1 108 17 1118 17 1118 17 1118 18 11 127 19 11 132 19 11 136 19 11 141 19 11 146 19 11 155 19 11 155 19 11 164 20 11 174 21 11 183 22 11 183 22 11 183 22 11 188 23 11 193 24 11 196 24 11 196 24 11 196 24 11 196 24 11 196 24 11 196 24 11 196 24 11 196 24 11 197 25 11 198 25 11 198 24		٠. ٠. ٠					
1 108 17 1118 17 1118 17 1118 18 11 127 19 11 132 19 11 136 19 11 141 19 11 146 19 11 155 19 11 155 19 11 164 20 11 174 21 11 183 22 11 183 22 11 183 22 11 188 23 11 193 24 11 196 24 11 196 24 11 196 24 11 196 24 11 196 24 11 196 24 11 196 24 11 196 24 11 197 25 11 198 25 11 198 24	ĹГ.	1000				*	
1 118 16 16 16 16 16 16 16 16 16 16 16 16 16	டி					I 103 I 108	16 17
1 127 19 19 19 19 19 19 19 19 19 19 19 19 19	نسليا	198	<u> </u>		_	] 113	
1 132 19 1 141 19 1 146 19 1 151 19 1 155 19 1 160 19 CAVITY PROFILE 1 164 20 1 174 21 1 174 21 1 179 22 1 183 22 1 188 23 1 193 24 1 194 24 1 202 24 1 196 24 1 202 24 1 207 25 1 217 25	ليفا						
I 141 19 I 146 19 I 151 19 I 155 19 CAVITY PROFILE I 164 20 I 176 21 I 179 22 I 183 22 I 188 23 I 193 24 I 196 24 I 207 25 I 217 25	D.						
1 141 19 1 146 19 1 151 19 1 155 19 -100 -50 C 50 100 1 160 19 CAVITY PROFILE 1 169 21 1 176 21 1 179 22 1 183 22 1 188 23 1 193 26 1 196 26 1 202 26 1 207 25 1 217 25		50	-			i 132 i 136	19
151 19 155 19 -100 -50 C 50 100 160 19 CAVITY PROFILE 164 20 174 21 179 22 183 22 188 23 199 24 199 24 199 24 199 24						I 141	19
155 19 -100 -50 C 50 100 160 19 CAVITY PROFILE 164 20 174 21 179 22 183 22 188 23 199 24 199 24 199 24 199 24				. \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			
-100 -50 C 50 100 I 160 19 CAVITY PROFILE I 164 20 I 174 21 I 179 22 I 183 22 I 188 23 I 193 24 I 196 24 I 202 24 I 207 25 I 217 25		0	L	<del> </del>			= :
I 169 21 I 174 21 I 179 22 I 183 22 I 186 23 I 193 24 I 196 24 I 202 24 I 207 25 I 217 25							19
I 174 21 I 179 22 I 183 22 I 188 23 I 193 24 I 198 24 I 202 24 I 207 25 I 212 25 I 217 25			CA	VITY PRO	FILE .		
I 179 22 1 183 22 1 188 23 1 193 24 I 198 24 I 202 24 I 207 25 I 212 25 I 217 25							
1 188 23 1 193 24 1 198 24 1 202 24 1 207 25 1 212 25 1 217 25					•	I 179	22
1 193 24 I 198 24 I 202 24 I 207 25 I 212 25 I 217 25							22
T 198 24 T 202 24 T 207 25 T 212 25 T 217 25							
796 1 202 24 1 207 25 1 212 25 1 217 25					•		
1 212 25 1 217 25						1 202	24
1 217 25 1 217 25				1	704		
4 687 43					그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그	I 212 1 217	25 25
i 221 25		,				. 221	

# RUUND NUMBER 66 CONTINUED

1	226	25
1	231	24
1	235	24
ľ	240	23
I	245	23
ī	250	22
1	254	21
1	259	20
1	264	19
1	268	18
Ī	273	17
Ī	278	17
1	283	16
1	287	15
1	292	14
I	297	13
1	301	12
1	306	10
I	311	9
Ţ	315 320	9
1	3 <i>2</i> 0	8

PROJECTILE TYPE -- W-W. L. .38 SPEC PROJECTILE VELOCITY (MPS) -345.97

PROJECTILE DIAMETER (CM) - .907

PROJECTILE DEFORMATION			I CAVITY MEASU	REMENTS	
PENETRAT DISTANCE 15		PRESENTED AREA (MM++2) 59	CROSS-SECT AREA (MM==2) 59	PENETRATION DESTANCE (MM)	CAVITY RADIUS (HM)
45. 84		60 69	60 69	1 4 1 9	16 19
183		<b>53</b>	55 63	1 13	33
				I 23 I 27	24
		•		1 32	25 26
				I 36 I 41	25 25
390	<u>-</u> -	T	- T	1 46	25
	l :			1 50 1 55	25 25
≖ ენυ	<u></u>		<b>-</b>	I. 60	25
F (00	ř : *			I 64 I 69	25 25
AALA CTL	1	/ }		I 73 I 78	24 25
000	<u></u>		$\neg$	1 83	25
22 65			•	I 87 I 92	24 24
 150	<u></u>	1	<del>-</del> -	I 96	23
CI EE	1			I 101 I 106	23
ł-·	÷	(		1 110	23 23
골 100			-7	1 128	22 22
اعدة ت		}		1 134	22 22
5.2	-	(		I 133 I 136	21 21
	-			1 143	21
-	:	1 \ 1 \	_1	i 147 I 152	21 21
	193 -	-50 0	50 100	I 157 I 161	20
		VITY PROF		I 166	20 20
				I 171 I 175	19 19
				I 180	19
				I 184 I 189	18 18
				I 194	17
				I 198 I 203	17 17
			798	I 207 I 212	17
				I 212 I 217	17 17
•				1 611	1 8

I	221	16
ì	226	15
1	230	15
1	235	14
I	240	14
1	244	13
I	249	13
j	254	13
1	258	12
I	263	12
1	268	12
1	272	11
I	277	11
I	281	11
1	286	11
I	291	10
I I	295 300	10
1	300	
]	304	10
ŀ	309	10
I	314 318	9
_		
I I	O O	0
ı	0	U

PROJECTILE TYPE -W-W. L., .357 MAG PROJECTILE VELOCITY (MPS) -115.45
PROJECTILE DIAMETER (CH) - .907

PROJECTILE DEFORMATION			I CAVITY HEASUREMENTS		
	6	HN) AREA (MM==2) AREA	1 (MM++2)	I I PENETRATION I DISTANCE (MM) I O	CAVITY RADIUS(MM)
	28 55	57 57	60 60	I 4	14 14
	110	51 34	60 65	1 14 1 18	16
				I 23 I 28	17 18
				I 32 I 37	18 17
	300		;	I 42 I 47	18 18
				I 51	18
<u> </u>	250		,	1 56 I 61	18 19
			i .	I 65 I 70	19 19
	200		)	1 75 1 80	19 19
N O				I 84	19
	150			i 89 i 94	20 20
RAT	150			1 98 I 103	20 20
<del>                                      </del>			1	1 108	20 20
ENET	100		7	) 112 I 117	21 21
9				1 122 1 137	22 33
	50		-	1 131 I 136	22 22
				i 141 I 145	23 23
				1 150	23
	-100	-50 0 50	100	1 155 1 159	23 23
	Į.	CAVITY PROFILE		I 164 I 169	23 23
				I 174 I 178	22 22
			;	I 183 I 188	21 21
			1	192	21
				l 197 l 202	20 20
				1 506	19
				<b>312</b>	19 18
			:	I 550	17

## ROUND NUMBER 52 CONTINUED

Ī	225	16
I	230	15
ľ	235	14
I	239	14
1	244	13
1	249	13
Ī	253	12
3	258	11
1	263	11
1	268	11
I	272	10
1	277	10
Ī	282	10
I j	286 291	10
ł	291	- 9
i I	296	9
I	300	9
I	305	9
Ī	310	8
Į	315	7
1	411	

ROUND NUMBER - 50

PROJECTILE MASS (GM)-10.238

PROJECTILE TYPE -W-W, L. .357 MAG PROJECTILE VELOCITY (MPS) -234.63
PROJECTILE DIAMETER (CH) - .907

PROJECTILE DEFORMATION			I CAVITY HEASUREHENTS	
			PENETRATION DISTANCE (MM) O O O O O O O O O O O O O O O O O O	CAVITY RADIUS (NH) 15 15 16 17 17
300 H 250 - L 200 N 200 - L 200 CAV			84 88 93 98 102 107 112 116 121 126 130 135 140 145 149 158 163 168 172 177 182 186 191 196 200 205 210	177 17 16 16 16 15 15 15 15 15 15 14 13 13 12 12 12 11 11 11 11 11 11 11 11 11

ł	224 228	18
i I	233 2 <b>38</b>	10 <b>9</b>
I	242 247	9 9
ĵ	252	ý
1	256	9
1	261	9
I	566	9
I	270	9
1	275	9
I	280	9
ľ	285	9
I	289	9
I	294	9
I	298	9
1	303	8
Ĭ	308	8
I	313 317	8 8
I I	322 <b>32</b> 7	8 8
Ī	0	0

PROJECTILE TYPE -W-W. L. .38 SPEC PROJECTILE VELOCITY (MPS) -285.93

PROJECTILE DIAMETER (CM) - .907

PROJECTILE DEFORMATION			I CAVITY MEASUREMENTS	
PENETRATION DISTANCE (MM 13 38 72 104 141	PRESENTED 1) AREA (MM++2) 	60	I PENETRATION I DISTANCE (MM) I O I 4 I 9 I 13 I 18 I 23 I 27	CAVITY RADIUS (MM) 13 14 15 16 17 18
PENETRATION DEPTH	T T T	T 162 TLE	1 32 1 37 1 41 1 46 1 51 1 55 1 60 64 1 78 1 88 1 92 1 102 1 106 1 111 1 116 1 120 1 125 1 129 1 134 1 139 1 139 1 143 1 148 1 157 1 162 1 176 1 176 1 176 1 176 1 176 1 190 1 194 1 199	18 17 17 17 18 18 18 190 20 21 21 22 24 25 25 25 25 26 27 28 29 30 31 32 33 33 33 33 33 33 33 33 33 33 33 33
		804	208 1 213 218	31 30 29

1	222	28
I I	227 231	27 26
I	236	25 24
Ī	241	
I I	245 250	23 22
ł	255	39
I	264	19
Ī	268	18
l	273 278	17 16
ī	282	15
Ī	2 <b>87</b>	14
j	292	13
i	296	12
j	301	11
i	306	10
ī	310	9
ī	315	8
1	318	8
I	0	0
Ī	Ô	O

PROJECTILE TYPE -W-W. L. .357 MAG PROJECTILE VELOCITY (MPS) -303.92

PROJECTILE DIAMETER (CM) + .907

PROJECTILE DE	FOR NATION	*****	I CAVITY HEA SUR	EMENTS
PENETRATION DISTANCE (MM) 16 43 78 111		AREA (MM++2) 69	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32	16 18 20 21 22 22 22 22
	-50 O F VITY PROF	50 100 ILE	168 172 177 182 187 191 196 200	22 23 23 23 22 22 22 22 22 22 22 22 21 20 20 20 20 20 20 20 19 19 19 19 19 19 19 19 19 19 19 19 19
		806	214	16 16

### ROUND NUMBER 53 CONTINUED

I I	224 228	15 15
1	233 238	15 15
1	243 247	15 15
í	252	14
]	257 261	14
1	266	14
I	270	13
Ī	275	13
I	280	13
I	285	13
1	289	13
1	294	13
1	298	12
1	303	12
1	308	12
I	313	11
Ī	317	11
ì	322	11
ī	Ö	ō
i	Ö	ō

PROJECTILE TYPE -W-W, L, .357 MAG PROJECTILE VELOCITY (MPS) -331.24
PROJECTILE DIAMETER (CM) - .907

PROJECT	ILE DE	FORMATION		I CAVITY MEAS	SUREMENTS
PENETRA Distanc 8	E (MM)	. 0	CRUSS-SECT 2) AREA (MM++2 0	PENETRATION DISTANCE (P	E CAVITY MB RADIUS(MM) 41
29 57 83 114	<b>)</b>	0 0 0	0 0 0	I 4 I 9 I 14 I 18 I 23 I 27	43 43 44 44 43 42
300		T T.		1 32 1 37 1 41 1 46 1 51	41 39 37 35 33
			_	I 55 I 60 I 65 I 69 I 74	30 28 26 24
200 2 2 2 2 1 1 1 1 5 1 5 1 5 1 5 1 5 1 7 1 7 1 7 1				1 79 1 83 1 88 1 97	22 21 20 19 18
7 100 - 100 - 100			-	1 102 1 106 1 111 1 116 1 120 1 125	16 16 14 13 11
50 0				1 129 I 132 I 134 I 136 I 137	7 6 5 3 2
-		-50 °C IVITY PR	50 100 OFILE		

PROJECTILE TYPE -W-W. L. .357 MAG PROJECTILE VELOCITY (MPS) -342-86

PROJECTILE DIAMETER (CM) - .907

PR	DJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
	NETRATION STANCE (MM) 64 94 127 155 183	PRESENTED  AREA (MM**2 177 173 207 148 208	CROSS-SECT  AREA (MM**2) 177 174 207 149 210	PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18	CAVITY RADIUS(HM) 28 31 34 37 39
H	250			1 23 I 27 I 32 I 37 I 41 I 46 I 50 I 55 I 59	42 43 44 45 46 47 47
ATION DEPI	200			1 97 1 64 1 69 1 73 1 78 I 82 I 87 1 92	46 46 45 45 43 43
A LUNIA	100 50			I 101 I 105 I 110 I 115 I 119 I 124 I 128 I 133 I 138	39 38 36 35 34 33 33
		SO OVITY PROF	su 100	1 142 1 147 1 152 I 156 I 161 I 165 I 170 I 174 I 179	30 30 29 28 27 27 26 25 24
			809	I 184 I 188 I 193 I 197 I 202 I 207 I 211 I 216	23 23 22 21 20 19 18 17

### ROUND NUMBER 49 CONTINUED

į	221	16
I	225	15
ľ	230	14
)	234	13
	239	- 12
ı	244	11
i	248	9
	253 257	8 8
ŀ	257	8
į.	262	7
Ī	267	7
}	<b>371</b>	6
•	285	3
1	290	
Ī	294	6 5 4
l	296	4

PROJECTILE TYPE -W-W, 1,.38 SPEC PROJECTILE VELOCITY (MPS) -224.57

PROJECTILE DIAMETER (CM) - 0.907

	PR03F0	TILE DE	FORMATION		I CAVITY MEASUR	REMENTS
	PEMETE		PRESENTER	CROSS-SECT 2) AREA (4M**2)	I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM
		5	6.0	61	1 0	1.3
	2	? <del>6</del>	68	68	1 4	14
		2	64	6.4	1 9	15
		77	64	65	1 14	15
	Ιſ	7	67	68	I 18	17
					1 23	18
					7 27	1.8
					1 32	19
					1 37	19
					1 42	19
	300			T	T 46	1.8
		1	1 ' 1		I 51	19
			1 1	i	I 56	1.8
				:	t 60	1.8
<u> </u>	- 250	$\vdash$	1 1		1 65	18
<del> </del>	-				t 70	18
<u> </u>					74	<b>†</b> A
	J 5				1 70	1.8
<u></u>	ີ ຄຍຄ	<del> </del>			I 83	1.7
2:1	-				Ţ RR	1.7
<u> 2</u>	1				1 93	17
+					J 98	17
⊢-		<u> </u>			1 102	17
Ų					1 107	16
<u> 0</u> :		į			I 111	1.6
H-			.	· =	1 115	1.5
	<b>j</b> 198	-		7	1 121	1.6
11	نـ				1 126	16
Ω					I 130	16
				1	135	16
	50	<b></b>	}	$\neg$	I tan	1.6
		1			I 144	15
			\ /		I 1/49	16
			1 \ 1	1	I 154	1.5
	C	L	L		1 158	16
	_	100 -5	ნე მ	50 190	163	1.5
				FILE.	T 168	16
		CHV	THING	1 4.4.	1 172	1.5
					1 177	1.5
					I 182	15
					1 186	15
					1 191	15
					1 196	15
					1 200	1.5
					1 205	1 4
					1 210	14
					1 214	15
					1 219	15

### ROUND NUMBER 46 CONTINUED

1	224	15
1	228	15
Ī	233	15
1	238	15
1	242	15
Ţ	247	15
1	252	15
Ī	256	15
Ī	261	15
Ţ	266	15
I	270	15
ī	275	15
I	280	15
1	284	15
I	289	14
I	294	14
Ī	298	14
I	303	13
I	308	13
Ī	313	12
I	317	12

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM) -15 * 16 36 57 103 110	PRESENTED AREA (MM**2) 67	AREA (MM**2) 67 * 66 72	PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32 I 36 I 41	8 9 10 11 12 13 14 15	
	-50 C VITY PROF	50 10C ILE.	1 46 1 50 1 55 1 59 1 64 1 69 1 73 1 78 1 82 1 87 1 92 1 101 1 106 1 110 1 115 1 120 1 124 1 129 1 133 1 138 1 142 1 147 1 152 1 156 1 161 1 165 1 170 1 175 1 179 1 184 1 189 1 193 1 198 1 203 1 207 1 212	15 14 14 14 13 13 12 12 12 11 10 10 9 9 9 9 9 8 8 7 7 7 7 6 6 6 6 6 6 6 6 6 6 6 6 6 6	

## ROUND NUMBER 326 CONTINUED

I	221	6
ſ	226	6
1	230	6
I	235	6
I	239	6
í	244	6
I	249	6
I	253	6
I	258	6
ī	263	6
Ī	267	7
i	272	7
i	276	7
i	281	7
i	286	7
i	290	7
i	295	7
Î	300	6
	304	6
I		
į	309	5
I	314	. 5
I	318	5
I		

PROJECTILE TYPE -W+W, LHP, .38 SPEC PROJECTILE VELOCITY (MPS) -220.58

PROJECTILE DIAMETER (CM) = 0.907

_	PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
	PENETRATION DISTANCE (MM) 1 18 41 63 84	PRESENTED AREA (MM++2) 60 107 112 120 124	CROSS#SECT Area (MM##2)	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 22 I 27 I 31 I 36	CAVITY RADIUS (MM) 11 13 14 16 19 21 23 25 26
		T T T T T T T T T T T T T T T T T T T	50 190 I L.E	I 40 I 45 I 49 I 54 I 59 I 63 I 72 I 77 I 81 I 86 I 90 I 104 I 109 I 113 I 118 I 122 I 127 I 131 I 136 I 141 I 145 I 150 I 154 I 159 I 163 I 159 I 163 I 172 I 177 I 181 I 186 I 190 I 195 I 199 I 204 I 209 I 213	26 27 27 26 27 28 22 22 21 21 21 21 21 21 21 21 21 21 21

DOLLND	NUMBER	40	CONTI	NU	ED

1	218	4
Ī	222	4
ī	227	3
i	229	2
;	0	0
î	n	0

PROJECTILE DEFORMATION I			I CAVITY MEASUREMENTS			
DI STA	RATION NCE (MM) 12 3 23 44 66 07	PRESENTED AREA (MM++2) 77 94 87 101 108 89 77	CROSS-SECT AREA (MM**2) 77 94 87 101 108 92 78	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 18 I 23 I 27 I 32 I 36 I 41	CAVITY RADIUS (MM) 9 11 13 15 17 19 21 22 22	
300	)			I 45 I 50 I 55 I 59	23 22 22 22	
I 250 ⊢ Ω				I 64 I 69 I 73 I 78	21 20 19 18	
- M - M - M - M - M - M - M - M - M - M			_	I 82 I 87 I 91 I 96	17 17 16 15	
⊢ ├ 150 └			2,	I 100 I 105 I 110 I 114 I 119	19 14 13 13	
10i N 10i			-	I 124 I 128 I 133 I 137	11 11 10 10	
<u>—</u> . 5:	٠ -	5		I 142 I 147 I 151 I 156	9 9 9	
		1 1/ -50 0 VITY PRØF	50 100 TLE	I 160 I 165 I 169 I 174	9 9 8 8	
				I 179 I 183 I 188 I 193	8 8 8 7	
			817	I 197 I 202 I 206 I 211 I 215	7 6 6 6	

## ROUND NUMBER 325 CONTINUED

I	220	6
I	225	6
I	229	7
1	234	6
I	238	6
I	243	6
I	248	6
I	252	6
I	257	6
Į I	261	5
I	266	5
I	271	4
Ī	275	3
ī	<del>-</del> -,-	_

PROJECTILE TYPE -W-W, LHP, .38 SPEC PROJECTILE VELOCITY (MPS) -252.71

PROJECTILE DIAMETER (CM) - 0.907

PROJECTILE DE	FORMATION	I CAVITY MEASUREMENTS		
PENETRATION DISTANCE (MM) 1 21 46 70 94	PRESENTED AREA (MM**2) 70 142 158 154 153	CROSS=SECT AREA (MM*+2) 70 143	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 19 I 23 I 28	17 19 20 23 27 29 31
	sc c !	100	33 36 43 43 48 52 57 62 67 72 67 76 81 86 91 96 100 1105 110 115 120 124 129 134 148 153 158 168 172 187 187 196 201 206	32 33 33 33 33 32 31 30 29 28 27 26 27 26 27 26 27 20 20 19 17 17 15 14 13 13 12 11 10 10 9 8
		819 I	211 216 220 225	7 6 6 6

Ī	230	5
Ţ	235	6
I	240	•
Ī		5
I	. 0	0
Ī	0	0

PROJECTILE TYPE --W-W, LHP, .38 SPEC PROJECTILE VELOCITY (MPS) --252.98

PROJECTILE DIAMETER (CM) -- 9.068

PROJECTILE D	EFORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM -11 6 30 54 79 124 131		AREA (MM**2) 68 159 154 148 151 162 152	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32 I 36	16 17 19 21 24 27 29 30
306 FTRATION DEPTH 300 C 100 C	-50 c AVITY PROF	50 103 ILE	I 41 I 46 I 50 I 55 I 60 I 64 I 69 I 73 I 78 I 83 I 87 I 92 I 97 I 101 I 106 I 110 I 115 I 120 I 124 I 129 I 133 I 138 I 143 I 147 I 152 I 156 I 161 I 166 I 170 I 175 I 179 I 184	32 32 32 32 32 31 30 29 29 27 26 24 24 23 22 20 20 19 19 18 17 16 15 14 12 11
		821	I 189 I 193 I 198 I 202 I 207 I 212 I 216	8 8 7 7 7 6 6

# ROUND NUMBER 324 CONTINUED

Ī	221	6
I	225	6
I	230	5
I	235	6
I	239	5
I	244	5
1	249	5
I	253	5
Ī	254	4

PROJECTILE TYPE --W-W, LMP, .38 SPEC PROJECTILE VELOCITY (MPS) --290.47

PROJECTILE DIAMETER (CM) -- 9.068

PROJECTILE DEFORMATION I			I CAVITY MEASUREMENTS		
PENETRATION DISTANCE (MM) -10 10 37 63 89 136 143	PRESENTED AREA (MM**2) 90 207 180 178 169 180 188	CROSS-SECT AREA (MM++2) 90 207 180 179 173 180	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32 I 36	CAVITY RADIUS (MM) 22 24 26 28 30 32 34 35	
300 PENETRATION DEPTH 250 0 150 CA	J C C VITY PROF	50 100 ILE	I 36 I 41 I 46 I 50 I 55 I 59 I 68 I 73 I 82 I 87 I 91 I 105 I 110 I 114 I 119 I 123 I 128 I 133 I 137 I 142 I 156 I 156 I 156 I 165 I 174 I 178 I 188 I 192 I 197 I 202 I 206 I 211	37 38 38 39 39 38 37 36 31 30 28 27 22 21 20 18 17 16 13 11 10 9 8 7	

### ROUND NUMBER 323 CONTINUED

I	220	7
I	224	6
I	229	6
Ţ	233	6
I	238	6
I	243	6
I	247	5
I	252	5
I	257	4
I	259	3
T		

ROUND NUMBER - 45 PROJECTILE MASS (6M)-10,236

PROJECTILE TYPE -H-W, LHP, .36 SPEC PROJECTILE VELOCITY (MPS) -318,52

PROJECTILE DIAMETER (CH) - 0.907

	FORMATION		I CAVITY MEASUR!	EMENTS
PENETRATION DISTANCE (MM)	PRESENTED AREA (MM**2) 82		I I PENETRATION I DISTANCE (MM) I O	CAVITY RADIUS (MM 19
27	167	168	i 4	20
57	169	169	1 9	23
84	166	170	I 13	25
110	181	182	I 18	29
			1 22	35
	•		1 27	34
			I 32	37
300		·	1 36	38
300	1 1	1	1 41	39
			1 45	40
	$\cap$		I 50 I 54	40 40
= asa ⊢		4	I 59	40
			I 64	40
· _i			i 68	39
7	/ \	Ì	1 73	39
ะชย 📙	/ \		i 77	38
<b>-</b>	/ \		I 82	37
D	/ \		1 86	36
150	/ \		I 91	35
150 –			I 96	34
	/		100	33
			I 105	32
J 100 누			1 109	31
	/		1 114	30
			I 119	29
1			1 123	28
53 <del> </del>		/ -	1 128	27
	\ /	/	1 132	26
		1	1 137	25
_			I 141 I 146	23 22
9 <u>r</u>			1 151	5.5 5.5
-100 -	-50 0	50 100	I 155	50
CAT	VITY PRØF	TLE	1 160	19
0,.		•	I 164	18
	•		1 169	17
			I 174	16
			I 178	15
			1 182	1 4
			I 187	13
			I 192	12
			1 196	12
•			I 201	11
			1 206	10
			I 510	10
		825	I 215	9

### ROUND NUMBER 45 CONTINUED

I	219	8
1	224	8
I	228	8
I	233	7
1	238	7
I	242	7
I	247	7
1	251	6
I	256	6
I	260	5
I	265	4
1	266	2

PROJECTILE TYPE -W-W, LHP, .38 SPEC PROJECTILE VELOCITY (MPS) -350,71

PROJECTILE DIAMETER (CM) # .0.907

PROJECTILE DEFORMATION I				I CAVITY MEASUR	EMENTS
	PENETRATION DISTANCE (HM) 6	PRESENTED AREA (MM**2)	121	I PENETRATION I DISTANCE (MM) I O	23
	31 64	211 189	211 189	I 4 I 9	25 28
	94	207	207	I 14	32
	123	214	214	1 18	35
				1 23	38
				1 28	41
				1 32	43
	300			1 37 1 42	44 46
	عزاز،	TIT		1 46 1 46	46
				j 51	45
				1 56	46
-	E 250 }	/ /		1 60	46
				I 65	45
L	1. J			1 70	4.4
Ĺ	200 -	1 . \		1 74 1 79	4 4 4 2
_			$\dashv$	1 84	41
F				I 88	39
jer	·	/		1 93	38 .
<del> </del>	<u>_</u> 150 <del> </del> -		_	I 98	37
<u>0</u>				1 102	36
+				1 107	35
i .	100 -			I 111 I 116	34
ے ال			┥ .	1 121	33 32
ū	-3			I 126	32
				I 130	31
	50 -	1		1 135	30
	· ·	\		I 140	30
				1 144	29
			1	1 149	28
			;	I 154 I 158	27 26
	-190 -5		0 100 .	I 163	25
	CAV	ITY PROFI	L.E	1 168	23
	1			1 172	22
				1 177	21
				1 182	2 n
				1 186	20
				1 191	19
			-	I 196 I 200	19 19
				1 200 1 205	18
				1 210	17
				1 214	16
				1 219	15

### ROUND NUMBER 30 CONTINUED

I	224	15
1	228	14
I	233	13
1	238	12
I	242	11
1	247	11
1	252	1.0
I	257	9
1	261	9
I	266	9
Ī	270	8
1	275	8
1	280	7
t	284	7
Ī	289	6
I	294	6
I	298	5
T	304	Ψ.

PROJECTILE TYPE --W-W, LHP, .38 SPEC PROJECTILE VELOCITY (MPS) --356.92

PENETRATION PRESENTED GROSS-SECT I PENETRATION CAVITY DISTANCE (MM) AREA (MM**2) I DISTANCE (MM) RADIUS (MM)  -5	PR	OJECTILE DE	FORMATION	`	I CAVITY MEASUR	EMENTS	
1		STANCE (MM) -5 19 51 81 111 165	AREA (MM**2) ARE 137 226 199 207 199 224	SS-SECT (A (MM**2) 137 226 199 207 200 225 198	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32 I 36	RADIUS (MM) 38 41 44 47 50 51 53 55	
I 132 38 I 137 37 I 141 35 I 150 33 I 155 33 I 159 32 I 164 30 -100 -50 0 50 100 I 169 30 CAVITY PROFILE I 173 29 I 182 28 I 182 28 I 187 27 I 191 25 I 196 23 I 201 22 829 I 205 21 I 210 20	ENETRGIICH DEPT	200 - 150 - 100 - 1		10°C	45 50 54 59 63 68 73 77 82 86 91 95 100 105 109 114 118 123 127 132 137 141 146 150 155 159 164 169 173 178 182 187 191 196 201	58 58 57 57 56 55 54 53 52 50 48 47 45 43 42 41 41 39 38 37 35 33 33 33 33 33 32 30 39 29 28 27 25 25 26 27 27 28 27 27 27 28 27 27 27 27 27 27 27 27 27 27	

### ROUND NUMBER 322 CONTINUED

I	219		19
I	223		19
Ī	228		18
ī	233		17
i	237		16
Ī	242		15
Ī	247		14
I	251	5 (	13
1	256		13
Ī	260		12
I	265		11
I	269		10
I	274		10
I	278		9
I	283		9
I	288		8
I	292		7
I	297		7
I	301		6
I	306		6
I	310		6
I	315		6
I	319		5
Ī	- 3 /		-

PROJECTILE	DIAMETER	(CM) -	9.068

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM) -4 23 59 92 147 185 194	PRESENTED AREA (MM**2) 78 89 74 64 23 25 25	CROSS-SECT AREA (MM**2) 79 89 76 71 72 82 80	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 22 I 27 I 31 I 36	29 33 36 38 40 43 45 47	
SENETRATION DEPTH  CHARGE TON	-50 0 VITY PROF	53 183 ILE.	I 40 I 45 I 49 I 54 I 58 I 63 I 67 I 72 I 76 I 81 I 85 I 90 I 94 I 108 I 117 I 121 I 126 I 135 I 139 I 144 I 148 I 153 I 157 I 162 I 175 I 166 I 171 I 175 I 180 I 189 I 198 I	49 52 52 51 51 51 51 51 51 51 51 51 51 51 51 51	

### ROUND NUMBER 292 CONTINUED

I	216	26
I	220	26
Ī	225	25
ì	230	24
Ĭ	234	23
i	239	22
I	243	21
I	248	21
ī	252	20
I	256	19
I	261	19
I	266	18
I	270	18
1	274	17
I	279	17
I	284	16
1	288	16
I	292	15
I	297	14
I	302	13
Ī	306	12
Ī	311	11
Ī	315	10
I		

PROJECTILE TYPE -W-W, LHP, .38 SPEC PROJECTILE VELOCITY (MPS) -360.45

PR	OJECTILE DE	FORMATION	I CAVITY MEASUREMENTS		
	NETRATION STANCE (MM)	PRESENTED AREA (MM**2)		I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS(MM)
	7 33 57	84 239 183	240 184	I 0 I 4 I 9	24 · · 26 30
	88 128	220 239	220 240	I 14 I 18 I 23	36 41 44
		•		I 28 I 32 I 37	46 47 48
	300	T		I 42 I 47 I 51	48 48 47
T	500		4	I 56 I 61 I 65	46 46 45
L. L.	200 -		<u> </u>	I 70 I 75 I 79	4 4 4 3 4 2
an ga Mari Mariji Mariji				I 84 I 89 I 94	41 40 39
1- UT OZ	150			I 98 I 103 I 108	39 38 37
	100 -		\ \	I 112 I 117 I 122	36 36 35
lu.i <u>L</u>	75.3			I 127 I 131 I 136	35 34 33
				I 140 I 145 I 150	33 32 31
		-50 C VITY PRØF	50 100	I 155 I 159 I 164	30 29 28
	LH	AT UT LINGS		I 169 I 173 I 178	27 26 25
			•	I 183 I 186 I 192	24 23 22
				1 197 1 202 1 206	22 21 20
				I 211 I 216 I 220	19 18 17

# ROUND NUMBER 41 CONTINUED

225	16
230	16
235	15
239	14
244	13
249	11
253	10
258	ĝ
263	
268	9. 8
40.4	7
	6
	ž
	6
291	7
	6
	4
0	7
	230 235 239 244 249 253 258 263 268 277 286 291 296 298

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) -5 21 59 90 124 181 190	PRESENTED AREA (MM**2) 128 295 125 91 97 91	AREA (MM**2) 128 295 125 91 97 100 96	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 22 I 27 I 31	CAVITY RADIUS (MM) 31 36 40 43 46 48 50
300 H1 GB	TO TO THE PROF	5J 193 ILE 835	1 36 1 40 1 45 1 50 1 54 1 59 1 63 1 68 1 72 1 77 1 81 1 86 1 95 1 100 1 104 1 109 1 113 1 118 1 122 1 127 1 132 1 136 1 141 1 145 1 150 1 154 1 159 1 163 1 168 1 172 1 177 1 181 1 186 1 190 1 195 1 200 1 204 1 209 1 213	53 53 53 54 55 55 55 55 55 56 57 57 57 57 57 57 57 57 57 57 57 57 57

## ROUND NUMBER 293 CONTINUED

I	218	18
I	222	17
I	227	17
I	232	16
Ī	236	15
Ī	241	15
Ī	245	14
ì	250	14
ï	254	12
i	259	11
i	263	io
ì	268	10
Ī	272	
Ī		10
	277	9
I	282	9
İ	286	9
I	291	8
Ī	295	8
I	300	8
I	304	7
Ī	309	6
I	314	6
1	318	5
I		

PROJECTILE TYPE -W-W,LHP, .38 SPEC PROJECTILE VELOCITY (MPS) -394.78

PROJ	ECTILE DE	FORMATION	I CAVITY MEASUR	EMENTS	
DIST	TRATION ANGE (HM) 9 37 74 107 138	PRESENTED AREA (MM++2) 114 313 104 94 100	CROSS-SECT AREA (MM++2) 114 313 106 97 101	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 16 I 23 I 27 I 32 I 36	CAVITY RADIUS (MM) 26 31 35 39 43 45 47 49
200 250 250 250 250 250 250 250 250 250	-100 ~	TO C STATE OF THE PROFE	196 L.E	I 41 1 45 I 50 I 55 I 56 I 68 I 73 I 78 I 82 I 87 I 91 I 100 I 105 I 110 I 114 I 119 I 123 I 128 I 133 I 137 J 142 I 146 I 151 I 156 I 160 I 165 I 169 I 174 I 178 I 183 I 188 I 192 I 197 I 201 I 206 I 211 I 215	50 49 48 47 46 43 41 33 33 33 33 33 33 29 28 22 22 21 20 21 21 21 21 21 21 21 21 21 21 21 21 21

I	220	15
I	224	15
1	229	1.4
1	233	14
Ī	238	13
I	243	12
I	247	12
1	252	11
I	255	11
1	261	10
Ī	266	9
Ĭ	270	9
1	2 <i>7</i> 5	. 8
1	2 <i>7</i> 9	8
ţ	284	8
I	289	8
I	293	7
Ī	298	5
Ī	302	6
1	307	5
1	311	6
I	316	7
I	n	ŋ
I	0	0

PROJECTILE TYPE --W-W. LHP. .38 SPEC PROJECTILE VELOCITY (MPS) --399.59

PROJECTILE DEFORMATION	I CAVITY MEASUREMENTS
PENETRATION PRESENTED CROSS-SECT DISTANCE (MM) AREA (MM**2) AREA (MM**2) -5 99 104 22 293 315 57 256 256 90 106 110 122 110 110 179 108 109 187 103 104	I PENETRATION CAVITY I DISTANCE (MM) RADIUS(MM) I 0 35 I 4 38 I 9 42 I 13 46 I 18 50 I 22 53 I 27 55 I 32 58 I 36 59
300 F T T T T T T T T T T T T T T T T T T	1 41 60 1 45 61 1 50 61 1 54 61 1 59 61 1 63 60 1 68 60 1 72 59 1 77 59 1 82 57 1 86 56
150 - 150 -	I 91 54 I 95 52 I 100 50 I 104 48 I 109 45 I 114 42 I 118 41 I 123 40 I 127 38 I 132 34
o l l l l l l l l l l l l l l l l l l l	I 136 34 I 141 34 I 146 33 I 150 32 I 155 31 I 159 30 I 164 30 I 168 29 I 173 28 I 178 26
839	I 182 25 I 187 26 I 191 25 I 196 25 I 200 24 I 205 24 I 210 23 I 214 23

#### ROUND NUMBER 321 CONTINUED

ı	219	22
i	223	21
I	228	20
I	232	19
Ī	237	18
I	242	17
Ī	246	16
1	251	15
I	255	14
I	260	13
Ī	264	12
Ī	269	10
I	273	9
I	278	7
ſ	282	7
Ī	287	6
I	292	6
Í	296	6
I	301	6
I	306	6
I	310	5
I	315	5
I	319	5
Ţ	324	4

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) =7 15 48 62 118 198 211	PRESENTED AREA (MM++2) 51 63 61 53 62 46 54	CROSS-SECT AREA (MM++2) 51	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32 I 36	CAVITY RADIUS (MM) 11 13 14 15 16 18 19 19
300			I 41 I 46 I 50 I 55	20 21 21 22
王 250 <u></u>		-	1 60 1 64 1 69 1 73 1 78	22 22 21 21 22
200 - NO		_	I 83 I 87 I 92 I 97	22 22 21 20
H 150 H 近			I 101 I 106 I 110 I 115	20 20 20 20
190 -			I 120 I 124 I 129 I 134 I 138	20 20 20 19 18
50		_	I 143 I 147 I 152 I 157	18 17 17 17
	-50 0 VITY PROF		I 161 I 166 I 170 I 175 I 180	16 15 17 16 16
			I 184 I 189 I 194 I 198	15 16 15 15
·.		841	I 203 I 207 I 212 I 217	15 15 15 15

#### ROUND NUMBER - 30: CONTINUED

I	221	15
1	226	14
1	231	14
1	235	1.4
1	240	1 4
1	244	13
1	249	13
I	254	13
I	258	1 4
I	263	13
I	267	13
I	272	13
I	<u> 2</u> 77	13
Ī	281	13
I	286	13
Į	291	13
I	295	13
I	300	12
I	304	12
I	309	11
I	313	11
Ī	318	11
I	323	11

PROJECTILE DE	FORMATION	I CAVITY MEASUREMENTS			
PENETRATION DISTANCE (MM) +5 22 60 99 139 213 224	PRESENTED AREA (MM#+2) 58 53 56 43 32 0		I PENETRATION I DISTANCE (MM) I O I 4 I 9 I 13 I 18 I 22 I 27 I 31 I 36 I 41	CAVITY RADIUS (MM) 14 17 19 21 22 23 24 25 26	
	50 0 50 ITY PROFI		I 45 I 50 I 54 I 59 I 63 I 68 I 72 I 77 I 81 I 86 I 91 I 95 I 104 I 109 I 113 I 118 I 122 I 127 I 32 I 136 I 141 I 145 I 150 I 154 I 159 I 163 I 173 I 182	26 25 25 25 25 25 25 25 25 25 25 25 25 25	
		843 1	204 1 209	24 23 22	

# ROUND NUMBER - 302 CONTINUED

Ī	218	22
1	223	2.2
I	227	21
I	232	21
I	236	20
I	241	19
Ţ	245	19
Ţ	250	18
1	255	18
1	259	17
I	264	16
I	268	15
1	273	14
I	277	1.4
I	282	13
I	286	13
I	291	12
Ī	296	12
1	300	11
1	305	10
1	300	1.0

PROJECTILE TYPE --W-W, LRN, .38 SPEC PROJECTILE VELOCITY (MPS) --384.35

PROJECTILE DIAMETER (CH) ++ 9.068

PROJECT	ILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRA DISTANC		PRESENTED AREA (MM++2	CROSSWSECT ) AREA (MM++2)	I PENETRATION I DISTANCE (MM)	CAVITY PADIUS(MM)
-2		. 45	46	I 0	21
29	,	54	62	I 4	22
67		37	49	1 9	24
107	•	20	53	1 13	26
147		0	48	1 18	28
219		3	39	I 23	30
230	)	0	46	1 27	32
				1 32	34
		• • •		1 37	35
		• • •		T 41	35
				1 46	35
300	<b></b>			I 51	36
		1 / 1		I 55	36
		/		I 60	37
		1		1 65	37
工 二 250	-	1		1 69	38
<u> </u>				7.4	37
<u>Q</u>		1		1 79	37
다 	į	1		1 83	37
200	-	1		1 88	37
		1		1 93	38
N (D)				1 97	37
<b>⊢</b>		1		I 102	37
<u>⊢</u> 150	<del>-</del>	}	1 -	1 106	37
Œ.				I 111	37
<u> </u>		1		1 116	38
				1 120	3A
N 100	-			I 125	37
نبا				1 130	. 37
$\overline{\nabla}$				1 134	37
				I 139	37
5년	-		1 -	1 144	36
		(	)	I 148	36
		\ /		1 153	36
		_ \ _ /		I 158	35
Ω	L	<u></u>		1 162	34
- 1	- 30	50 O	50 100	1 167	34
· ·				I 172	33
	Ų H V	/ITY PRØF	ILE	1 176	34
				I 181	33
			•	I 186	33
				1 190	32
			•	I 195	32
				1 200	31
				1 204	31
				1 209	31
				I 214	30
			845	1 218	30

#### ROUND NUMBER. 303 CONTINUED

I	223	29
Ĭ	227	28
1	838	28
1	237	27
1	241	26
1	246	26
1	251	25
I	255	25
Ī	260	24
I	265	24
İ	269	24
Ī	274	23
I	279	22
1	284	22
I	288	21
1	293	21
1	297	2:0
1	302	19
1	307	17
1	311	14
I	316	12
I	321	11
Ī	323	11
Ţ		

ROUND NUMBER -- 304

PROJECTILE TYPE --W-W, LRN, .38 SPEC PROJECTILE VELOCITY (MPS) --288.04

PROJECTILE DIAMETER (CM) -- 9.068

PRO	JECTILE DE	FORMATION		I CAVITY MEASURE	EMENTS
	ETRATION TANCE (MM) -9 15 46 81 118 194 204	PRESENTED AREA (MM**2) 61 59 58 56 57 32 36	0.1700.050.	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32 I 37 I 41	CAVITY RADIUS (MM) 13 14 16 17 19 20 20 21 21
Ξ δ:	00 <u> </u>		T	I 46 I 51 I 55 I 60 I 64 I 69 I 74 I 78 I 83	21 21 21 21 20 20 20 20 19
N D 1	50 L		-	1 88 I 92 I 97 I 102 I 106 I 111 I 115 I 120	20 19 18 18 18 19
H: N: 1:3 1:4 1:4 1:4 1:4 1:4 1:4 1:4 1:4 1:4 1:4	50 <b>-</b>		_	I 125 I 129 I 134 I 138 I 143 I 148 I 152 I 157 I 162	20 20 19 19 19 20 19 20
		E C 5	. L. E	I 166 I 171 I 175 I 180 I 185 I 189 I 194 I 199 I 203 I 208 I 212 I 217	21 21 22 23 23 23 22 22 24 25 25 25

847

### ROUND NUMBER 304 CONTINUED

I	222	25
I	226	25
Ī	231	25
ī	236	25
Ī	240	24
Ī	245	24
I	250	24
ì	254	23
I	259	23
Ī	263	22
Ţ	268	21
Ī	273	20
Ī	277	20
I	282	19
I	286	1.8
1	291	17
1	296	16
1	300	15
I	305	13
Ī	310	1.1
7	314	10

PR	DJECT	LE DE	FORMATION		I CAVITY MEASUR	EMENTS	
	NETRAT STANCE -3 24 60 99 139 215 227		PRESENTED AREA (MM**2) 56 59 51 50 49 5	AREA (MM**2) 56 60 51 50 50 52	PENETRATION DISTANCE (MM)  0 4 9 1 13 1 18 23 27 32 37 41	15 17 19 20 21 23 24 24 24 25	
	200	!			I 46 I 51 I 55 I 60 I 64	25 25 25 24 24	
H G U	250				I 69 I 74 I 78 I 83 I 88	24 24 24 24 24	
I C'N D	200				92 1 97 1 102 1 106 1 111	23 23 23 24	
NETRAT	150				I 115 I 120 I 125 I 129	24 23 24 24 25	
1.11 0.	50				I 134 I 139 I 143 I 148 I 153	24 24 24 24 24	
	ð	 	-50 0	50 100	I 157 I 162 I 166 I 171 I 176	24 23 23 23 24	
		CA	VITY PRØF	' <b>1</b> 1	180 185 190 194 199	24 24 24 24 24	
				849 I	204 208 213 217	25 25 24 24	

#### ROUND NUMBER 305 CONTINUED

I	222	23
I	227	23
1	231	22
1	236	21
1	240	21
1	245	21
I	250	20
1	254	20
Ī	259	20
Ī	264	20
I	268	19
I	273	18
Ī	277	17
I	282	17
I	287	16
Ĭ	291	15
I	296	14
1	301	13
Ī	305	12
1	310	11
Ī	315	10
I	319	8
I	324	7
I		

RDUND NUMBER -- 306 PROJECTILE MASS (GM) -- 10.238

PROJECTILE TYPE --W-W, LRN, .38 SPEC PROJECTILE VELOCITY (MPS) --381.30

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) -3 31 63 109 150 237 248	PRESENTED AREA (MM++2) 54 58 43 40 41 55	CROSS-SECT AREA (MM**2) 55 58 46 46 50 55 52	I PENETRATION I DISTANCE (MM) I O I 4 I 9 I 14 I 18 I 23 I 27 I 32 I 37	18 21 22 24 25 27 28 30 31
300 FATT 300 NOT THE TRAIN TOO 150 TO CH	-50 0 AVITY PRO	50 100 FILE	I 41 I 46 I 51 I 55 I 60 I 65 I 69 I 74 I 78 I 83 I 88 I 93 I 97 I 102 I 107 I 111 I 116 I 120 I 125 I 130 I 134 I 139 I 144 I 148 I 153 I 158 I 162 I 167 I 172 I 176 I 181 I 186 I 190 I 195 I 199 I 204 I 209 I 213	31 32 32 32 32 31 32 31 31 30 29 28 28 28 28 27 26 26 26 25 25 25 25 25 27 24 24 24 24 23 23

### ROUND NUMBER 306 CONTINUED

I	223	23
I	227	23
Ĭ	232	22
i	237	22
I	241	21
I	246	21
I	251	21
I	255	21
I	260	20
I	265	20
I	269	19
Ī	274	19
Ī	279	18
Ī	283	18
I	288	17
I	292	17
ľ	297	16
I	302	15
I	306	14
I	311	13
Ī	316	12
ī	320	12
î		
1	323	11

ROUND NUMBER - 57

PROJECTILE TYPE -- W-W. MATCH..385PEC PROJECTILE VELOCITY (MPS) -- 119.09
PROJECTILE DIAMETER (CM) - .907

PROJECTILE D	EFORPATION	I CAVITY HEASUR	EMENTS	
PENETRATION DISTANCE (MM		RDSS-SECT Area (MM++2)	PENETRATION DISTANCE (MM) O	CAVITY RADIUS(HM) 21
29	99	99	1 4	22
54 76	97 <b>94</b>	97 94	j 9 1 13	24 26
100	103		1 18	27
			1 23	28 29
			i 27 1 32	29
			1 37	30
300		<del></del>	1 41	30
	1 1	<b>'</b>	I 46 I 50	30 30
± 250 -			1 55 1 59	29 28
١			1 69	28 27
200 <u> </u>			1 74 1 78	26 26
PENETRATION - 001			I 83 I 87	25 24
<u>-</u>	} \		1 92	. 23
<u>├</u> 150	/ \		1 97 1 101	22 21
2			1 106	20
<u> </u>			1 110	19 18
三 100	/	7	1 115 1 120	17
(L)			1 124	16
1			I 129 I 133	16 15
50		-	1 138	14
			1 143	13
o L			1 147	12
-1DD	-50 D	50 100	1 157	12
	AVITY PROF		I 161 I 166	11 10
			1 173	10
			172	Ş
			I 189 I 193	8 8
			1 193 1 198	8 7
			I 203	7
		853	1 207 1 212	7
		033	I 212 I 217	6 6

## ROUND NUMBER 57 CONTINUED

Ŧ	221	5
ļ	226	5 5
I	230	
I	235 240	5 5
1	244 249	4
ł	253 256	4

ROUND NUMBER -- 291

PROJECTILE MASS (GM) -- 10.238

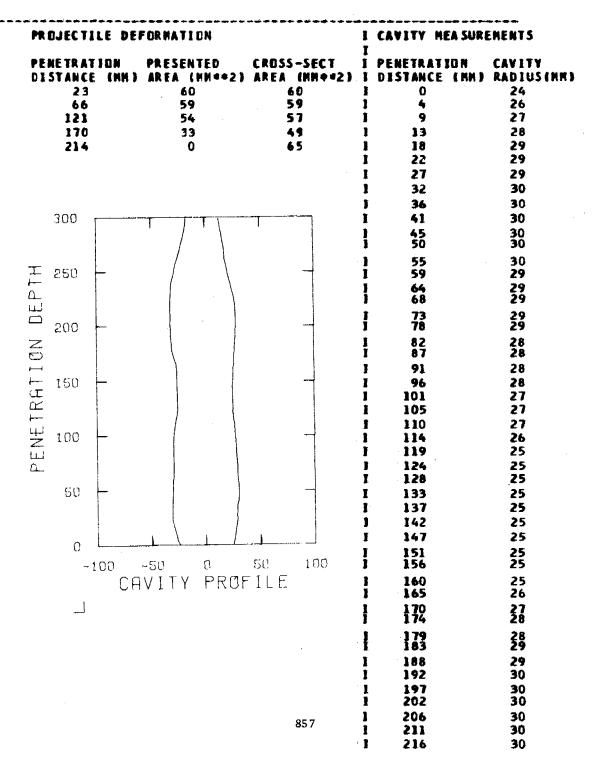
PROJECTILE TYPE --W-W, MP. .357 MAG PROJECTILE VELOCITY (MPS) --391.36

PROJECTILE DE	FORMATION	CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM) -4 30 72 111 152 228 239	PRESENTED AREA (MM**2) 61 55 42 30 11 23 13	AREA (MM**2) 1 61 55 47 46 37	PENETRATION DISTANCE (MM)  0 4 9 13 18 22 27 32	CAVITY RADIUS (MM) 19 20 22 22 23 25 26 28 29
300		`	45 50 55 55	29 30 30 29 30
E 250			1 69 1 73 1 78 1 82	30 31 31 32
200  - NO 1 150  -			96 1 101 1 106	32 32 32 34 36
EN 100		/ - - 1	124 128	37 38 39 40 41 42
ā. 50 →			138 142 147 152	44 44 44 45
-190 -180 CA	<u>                                     </u>	153 158 ILE	161 165 170 174	45 45 45 45 44
ال			184 188 193 197	43 42 41 40 39
		855 I	207 211	37 35 34 32

### ROUND NUMBER 291 CONTINUED

I	221	31
I	225	29
I	230	28
I	234	26
I	239	26
1	244	25
1	248	24
I	253	23
I	257	22
I	262	22
Ī	267	21
I	271	20
I	276	20
1	280	19
I	285	19
ľ	290	18
I	294	18
I	299	17
I	303	16
I	308	15
I	313	14
I	317	13
I	322	13
I		

PROJECTILE TYPE -W-W, MP, .357 MAG PROJECTILE VELOCITY (MPS) -401.37



### ROUND NUMBER 55 CONTINUED

1	220	29
Ī	225 2 <b>29</b>	29 28
1	234 238	27 26
ł	243 248	25 24
Ī	333	<b>3</b> 3
I	261	21
I	266	20
	271	19
1	275	18
I	280	17
1	284	17
1	289	16
3	294	15
Ī	298	14
Ī	303	14
Ī	308	13
Ī	312	12
Ī	317	11
i	320	11
i	0	Ō
	v	v

ROUND NUMBER -- 311

PROJECTILE MASS (GM) ---10.238

PROJECTILE TYPE --W-W, RN, .38 SPEC PROJECTILE VELOCITY (MPS) --304.19

PROJEC	TILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETR DISTAN 10 50 8 120 200 220	CE (MM) 7 6 6 7 7 6 8	PRESENTED AREA (MM**2) 52 52 52 58 54 54 52 47	CROSS-SECT AREA (MM**2) 52	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 18 I 23 I 27 I 32 I 37	CAVITY RADIUS (MM) 14 15 17 18 19 20 21 21
300		T   T		I 41 I 46 I 50 I 55 I 60	22 22 22 22 22 22
<u> 2</u> 566			_	I 64 I 69 I 73 I 78	21 21 22 22
11 12 - 200 21 22			!	I 83 I 87 I 92 I 97	21 21 21 21 22
150 III III			-	I 101 I 106 I 110 I 115	21 20 21 21
는 일 193 교 요.			-	I 120 I 124 I 129 I 134	20 19 19 18
50			-	I 138 I 143 I 147 I 152	19 19 19 19
		T \ T \ T \ T \ T \ T \ T \ T \ T \ T \	100 100 11 E	I 157 I 161 I 166 I 171 I 175	19 19 19 18 18
				I 180 I 184 I 189 I 194	19 19 20 21
			859	I 198 I 203 I 207 I 212 I 217	20 20 20 20 20 20

## ROUND NUMBER 311 CONTINUED

I	221	21
Ī	226	20
I	231	20
1	235	19
I	240	20
I	244	20
I	249	23
Ī	254	20
I	258	21
I	263	20
I	267	20
I	272	. 20
I	277	20
I	281	19
I	286	19
Ĭ	291	19
Ĭ	295	18
I	<b>30</b> 0	18
I	305	17
I	309	16
I	314	16
I	318	15
I	323	14
Ĭ	327	12

ROUND NUMBER -- 312 PROJECTILE MASS (GM) --10.238

PROJECTILE TYPE --W-W, RN, .38 SPEC PROJECTILE VELOCITY (MPS) --334.67

PROJECT	TILE DE	FORMATION		I CAVITY HEASUR	EMENTS	
PENETRI DISTANI 21 57 97 134 224	CE (MM) 6 1 7 7 9 9	PRESENTED AREA (MM**2) 64 61 57 52 56 53 41	AREA (MM**2) 64 61 57 53 58	I PENETRATION I DISTANCE (MM) I O I 4 I 9 I 14 I 18 I 23 I 28 I 32 I 37	18 20 21 22 23 23 23 24 24	
300	MINITED IN THE A TO FAME	T / T	<u> </u>	I 41 I 46 I 51 I 55 I 60	24 23 23 23 23 23	
王 250 <u>-</u>			-	I 64 I 69 I 74 I 78	23 23 22 22	
00 DE			1	I 83 I 88 I 92 I 97 I 101	22 22 22 22 22 22	
1 H H H H H H H H H H H H H H H H H H H			-	I 101 I 106 I 111 I 115 I 120	22 22 21 21 21	
년 시 년 년			-	I 124 I 129 I 134 I 138	21 21 20 20	
50 0				I 143 I 148 I 152 I 157 I 162	20 20 19 19 19	
		so c VITY PROF	ILE	I 166 I 171 I 175 I 180	19 19 18 18	
			861	I 185 I 189 I 194 I 199 I 203 I 208 I 212 I 217	18 19 19 18 18 18 18	

### ROUND NUMBER 312 CONTINUED

I	221	18
I	226	19
I	231	19
ſ	235	19
£	240	19
I	245	19
I	249	19
I	254	18
I	259	18
I	263	18
I	268	18
I	272	18
I	277	18
I	282	17
t	286	17
I	291	17
I	296	16
I	300	16
í	305	15
I	310	14
I		

ROUND NUMBER -- 313

PROJECTILE MASS (GM) --10.238

PROJECTILE TYPE --W-W, RN, .38 SPEC PROJECTILE VELOCITY (MPS) --376.73

ROJECTILE DE	FORMATION	I CAVITY MEASUR	EMENTS	
ENETRATION ISTANCE (MM) -4 26 66 108 153 245 259	PRESENTED AREA (MM**2) 59 56 52 49 51 49	AREA (MM**2) 59 56 53 51 54 50 50	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 22 I 27 I 32	CAVITY RADIUS (MM) 19 21 22 23 24 25 26 27
300	T ( T )		I 36 I 41 I 45 I 50 I 54 I 59 I 63 I 68	27 28 28 28 28 28 28 28
E 250 -		_	73 1 77 1 82 1 86 1 91 1 95 1 100	26 26 26 26 26 26 26 26
150 - H		-	I 105 I 109 I 114 I 118 I 123 I 127 I 132	26 25 25 25 25 25 25
50 -100	-50 0	50 100	I 137 I 141 I 146 I 150 I 155 I 159 I 164	24 23 23 23 22 22 22
C1	AVITY PRO	FILE 863	I 168 I 173 I 178 I 182 I 187 I 191 I 196 I 200 I 205 I 210	21 21 21 21 20 20 20 20 20

#### ROUND NUMBER 313 CONTINUED

I	219	19
Ţ	223	19
I	228	18
1	232	18
I	237	18
I	242	17
I	246	17
I	251	17
I	255	17
ſ	260	17
Į	264	17
I	269	16
I	273	16
1	278	15
Ĭ	283	15
ĭ	287	14
í	292	14
Ţ	296	13
I	301	12
I	305	12
I	310	11
I	315	11
Ī	<del>-</del> -	

PROJECTILE TYPE --W-W, SWC, .38 SPEC PROJECTILE VELOCITY (MPS) --241.40

PROJECTILE DIAMETER (CM) -- 9.068

PENETRATION DISTANCE (MM) -10 10 35 64 93 156 166	PRESENTED AREA (MM**2) 52 55 55 51 52 54 57	CROSS-SECT AREA (MM**2) 53 55 56 52 52 52 55 58	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23	CAVITY RADIUS (MM) 15 17 19 21 22 23
			I 27 I 32 I 36	23 24 24
J0C		<b>T</b>	I 41 I 46 I 50 I 55 I 59 I 64	24 24 24 23 23 23
Ⅱ 950 L		_	I 69 I 73 I 78 I 82	23 23 23 23
200 - 200 - 22 FO		_	I 87 I 92 I 96 I 101	21 20 19
H 150 H			I 106 I 110 I 115 I 119	19 18 18 17
LL 100 -		-	I 124 I 129 I 133 I 138	17 17 16 15
50			I 142 I 147 I 151 I 156	14 13 13
	1 1 1 / 1 / -50 ° C	100 50 100	I 161 I 165 I 170 I 175	13 13 13 13
LH	VITY PRØF		I 179 I 184 I 188 I 193	13 12 12 12
·		865	I 198 I 202 I 207 I 211	12 12 12 12

## RUUND NUMBER 307 CONTINUED

I	221	12
I	225	13
I	230	12
I	234	12
I	239	12
1	244	12
Ī	248	11
ľ	253	11
I	257	12
I	262	12
Ţ	267	12
I	271	11
I	276	11
I	280	11
I	285	11
Į	290	10
I	294	10
£	299	10
ſ	304	9
Ţ	308	9
I	313	9

_						
	PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
	PENETRATION DISTANCE (MM) -10	· <b>57</b>	CROSS-SECT AREA (MM**2) 58	I PENETRATION I DISTANCE (MM) I 0	17	
	14	62	62	1 4	19	
	44 77	51 47	51 48	I 9 I 13	21 22	
	111	47	50	I 18	24	
	178	41	53	1 22	25	
	188	37	56	1 27	26	
				I 32	26	
				I 36	27	
				I 41	27	
				I 46	27	
				I 50	27	
	300		T	I 55 I 59	26 25	
				I 64	25	
				I 68	24	
	<del>_</del>			I 73	24	
	工 250 -	1		I 78	24	
	Δ			I 82	24	
	أالا			1 87	24	
	500 <del> </del>	( )		I 92	22	
				I 96	22	
	Z C			I 101 I 105	21	
	<del></del>	\ /		I 105 I 110	21 20	
	<u>⊢</u> 150 ⊢			I 115	20	
	<u>5.</u>	\ )		1 119	21	
	1	1		I 124	21	
	일 198		-	I 129	21	
		( )		I 133	21	
	ليا ث.			I 138	21	
			نــ	I 143	21	
	50 <del> -</del>			I 147	21	
		\		I 152 I 156	20 21	
		\ /		I 156 I 161	22	
	o 1			1 165	23	
		-50 ° 0	50 100	I 170	22	
	-100	-50 0	2	1 175	22	
	Ç	AVITY PRO	T I L.E.	I 179	22	
	1		•	I 184	22	
	اــ.			I 188	22	
				I 193	23	
				I 198	23	
				I 202	23	
			867	I 207 I 212	22 23	
				I 212 I 216	23 22	
					~~	

## RUUND NUMBER 308 CONTINUED

I	221	22
I	225	22
1	230	22
[	235	21
I	239	21
I	244	21
ĭ	249	20
I	253	20
1	258	20
I	262	19
I	267	19
I	272	Ĩ9
1	276	18
I	281	18
I	285	17
í	290	16
1	295	16
I	300	15
Ţ	304	14
I	308	13
I	313	13
I	318	12
I	322	11
I		

PROJECTILE TYPE --W-W, SWC, .38 SPEC PROJECTILE VELOCITY (MPS) --342.90

- KOJEGIILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) -4 21 53 88 * 189	PRESENTED AREA (MM**2) 58 60 64 59 * 64	CROSS-SECT AREA (MM**2) 60 64 67 68 * 64	PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32 I 37 I 41	CAVITY RADIUS (MM) 28 31 34 37 39 41 42 43 44
250 - 250 - 150 - 50 - 50 - 50 - 50 - 50 - 50 - CAV	to o 50 ITY PROFIL	100 E	I 46 I 50 I 55 I 60 I 64 I 69 I 74 I 78 I 83 I 88 I 92 I 102 I 106 I 111 I 115 I 125 I 129 I 134 I 139 I 143 I 148 I 153 I 157 I 162 I 166 I 171 I 176 I 180 I 185 I 190 I 194 I 199 I 194 I 199 I 203	45 44 44 43 42 41 40 38 37 36 35 36 35 32 31 29 29 29 29 29 29 29 29 28 28 28

## ROUND NUMBER 309 CONTINUED

I	222	25
I	227	24
I	231	23
I	236	21
I	241	21
I	245	21
Ţ	250	20
Ĭ	255	20
I	259	20
ī	264	19
ſ	269	19
Ĭ	273	18
ſ	278	17
I	282	16
I	287	16
1	292	15
Ĭ	296	14
ī	301	13
I	306	12
Ī	310	11
Ī	315	10
I	318	9
ĭ	- <del>-</del> -	

PROJECTILE TYPE -W-W. SWC. .38 SPEC PROJECTILE VELOCITY (MPS) -344.23
PROJECTILE DIAMETER (CM) - .907

PROJECTILE DE	FORMATION	I CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM)	PRESENTED AREA (MR == 2	CROSS-SECT	I PENETRATION I DISTANCE (MM)	CAVITY RADIUS(MM)
13 42	56 85	56 85	I 0 I 4	19 22
77 109	88 94	8 <b>8</b> 10 3	I 13	25 28
142	85	100	1 23	30 33
			1 27 1 32	34 36
			1 37 1 41	38 38
300	T   \T		I 46	38
			1 51 I 55	39 39
<u>∓</u> 250 -		4	i 60 i 65	39 39
F P			1 69 1 74	38 38
200			I 78	38
Z			1 83 1 88	37 36
<b>-</b>			I 93 I 97	35 34
150 - CE			I 102 I 106	35 34
<del>-</del>			I 111 I 116	33 32
N 100			I 120	32
<u>a</u>			I 125 I 130	31 -30
<b>5</b> 0			I 134 I 139	29 29
			I 144 I 148	28 27
c —			I 153 I 157	26 26
	-50 0	50 100	1 162	26
C H	VITY PRO		1 172	26 25
			I 176 I 181	24 23
			I 185 I 190	<b>22</b> 22
			I 195	22
			1 204	21 21
			I 209 I 213	20 19
			I 218	18

## ROUND NUMBER 58 CONTINUED

1	222	17
1	227	16
Ŧ,	232	16
1	236	15
I	241	14
ł	246	14
Ŧ	250	14
j	255	14
1	260	14
I	264	13
3	269	13
Ī	273	13
I	278	13
1	283	12
I	287	12
ř	292	11
I	297	10
Ī	301	8
l I	306	8 7
I	311	7
I	315	7

PROJECTILE TYPE --W-W, SWC, .38 SPEC PROJECTILE VELOCITY (MPS) --392.28

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) -2 26 61 94 127 190 199		CROSS-SECT AREA (MM**2) 108 124 132 113 113 121 116	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32	CAVITY RADIUS(MM) 34 37 40 42 44 46 47 48
3 <b>0</b> 0	T / / /		I 36 I 41 I 46 I 50 I 55 I 59	48 49 49 49 49
E 250 -		-	I 64 I 68 I 73 I 78 I 82 I 87 I 91	49 49 48 47 47 45
2 5 7 150 1.			1 96 1 101 1 105 1 110 1 115 1 119	45 44 43 41 40 39
100 – 50 –			128 133 138 142 146	38 37 36 36 35 34
	VITY PROF	1	1 156 1 160 1 165 1 170 1 174	31 30 29 29 27 26
٠.		· 1	1 183 1 188 1 193 1 197 1 202	25 24 23 22 21
		873 I 1 1	211	20 19 19

## ROUND NUMBER 310 CONTINUED

1	220	18
I	225	18
I	229	17
I	234	16
I	239	16
1	243	16
Ŧ	248	15
I	252	15
Ī	257	15
I	262	14
Ţ	266	14
1	271	14
I	275	13
I	280	13
I	285	13
I	289	12
ſ	294	11
I	299	11
I	303	11
ſ	308	10
I	312	10

PROJECTILE TYPE --W-W, WC.38SPEC PROJECTILE VELOCITY (MPS) --238.35

PROJECTILE DE	FORMATION	CAVITY HEASUR	EMENTS	
PENETRATION DISTANCE (MM)	AREA MH++2) AREA			CAVITY RADIUS(MM) 23
-6 18		00	6	23
39	95	95	12	25
61	81	83	18	27
83	87	87	24	28
111			30	31 32
125	104	106	36 I 42	32 32
		•	1 42 1 48	31
	•		54	31
			61	30
300	-1		66	29
	1 1 1		72	28
	$\Box$		1 79	2.6
	1 }		I 85	24
王 250	) ]	$\dashv$	91	24 23
٥	. [ ]		1 97 I 103	23
ON DEP 000	\ \		1 103 1 109	21
<sup>□</sup> 200 ⊢	1 (	_	1 115	20
7	) \		1 121	19
0	/ \	1	1 127	17
<del></del>	/ \	i '	I 134	17
H 150	/	$\neg$	1 139	17
8	/ 1		1 146	15
T.R.			I 152 I 158	14 14
변 100 <b>-</b>	/	_	1 164	13
2 100	/	ľ	1 170	15
<u>ا</u>	/		1 176	11
j	/	1	J 182	9
50		l	1 188	8
1	\	i	194	7
	\	i	1 200	7 7
o L		1	1 206 1 213	7
	F0 0 F0		1 219	7
-100	-50 0 50	100	j 225	ż
C	AVITY PROFIL.	<b>⊢</b>	1 231	Ť
		4	1 237	7
		į	1 243	6
			1 249	6
			1 255	6
			1 261	6
			1 267	5
•			I 273 1 279	5 5
	•		1 275	

PROJECTILE TYPE --W-W, WC, .38 SPEC PROJECTILE VELOCITY (MPS) --264.87

PROJECTILE DIAMETER (CM) -- 9.068

- 100 - 100 - 100	PROJE	CTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
	DI STA	RATION NCE (MM) -8 11 36 61 86 33	PRESENTED AREA (MM**2) 121 112 100 111 103 100 95	CROSS-SECT AREA (MM**2) 121 113 100	I PENETRATION I DISTANCE (MM) I 2 I 4 I 9 I 13 I 18 I 23 I 27 I 32 I 37	CAVITY RADIUS (MM) 25 27 29 30 31 33 34 34	
	<b>30</b> €	<u></u>	· 1/ / T		I 41 I 46 I 51 I 55 I 60	36 36 37 37 37	
	ຄູຍູວ			_	I 64 I 69 I 74 I 78 I 83	36 35 34 33 32	
IGN D	200			-	I 88 I 92 I 97 I 102 I 106	31 30 29 27 25	
ENETRGI	150				I 111 I 116 I 120 I 125 I 129	24 24 23 22 20	
L L	50			_	I 134 I 139 I 143 I 148 I 153	19 19 17 17 16	
	0 -		O C 50 ITY PROFI	l F	I 157 I 162 I 166 I 171 I 176	16 16 15 15	
		·		•	I 180 I 185 I 190 I 194 I 199	13 12 11 11 11	
				876	I 203 I 208 I 213 I 218	11 11 10 10	

#### ROUND NUMBER 314 CONTINUED

I	222	9
I	227	9
I	231	9
I	236	8
Ī	241	7
Î	245	7
Ī	250	6
Ī	255	5
Ī	259 259	2
		5
I	264	5
Ī	269	5
I	273	5
I	278	. 5
I	282	5
I	287	5
I	292	6
I	296	6
I	301	5
1	306	5
I	310	4
Ţ	315	4
I	320	4
ī		•

ROUND NUMBER -- 366

# PROJECTILE MASS (GM) -- 9.590

PROJECTILE TYPE --N-W, NC,38SPEC PROJECTILE VELOCITY (MPS) --308.76

ILE DEFORM	ATION		I CAVITY MEASURI	EMENTS
E (MM) ARE		RDSS-SECT REA (MM*+2)	I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (HM)
	142	143	1 0	29
	135	136	1 4	30
	143	349	1 9	32
	124	132	1 14	34
	319	120	1 19	36
	123	124	I 23	37
	120	121	I 28	39
			I 33	39
	**************************************		I 38	39
			I 42	39
			J 47	39
F			I 52	38
	}		I 57	38
			I 61	37
	( )		1 66	37
<del> </del>	/ (		I 71	37
	}		76 I 81	38
	1		1 85	39
1	1 1		1 90 1 90	38 37
<b></b>	} \	$\rightarrow$	I 95	36
:	) (		1 100	→ 36
	/		1 105	35
	/		1 109	33
<del>-</del>	)		1 114	31
,	⟨		I 119	31
	1		1 124	30
/	′ \		I 128	28
	{	$\dashv$	I 133	28
	)	1	1 138	27
[	7		1 143	25
	\		I 148	25
		-	1 152	26
1	1		I 157	24
	}		I 162	23
1	/	1	1 167	22
			1 171	20
.00 -50	0 5	U 188	I 176	19
CAVIT	Y PROFI	1 F	1 181	19
<u>-</u> 1		£. £_	I 186	17
		•	1 190	17
			I 195	17
			I 200	15
			1 200	14
		076	1 205	15
		878	1 210	15
			1 214	15

#### ROUND NUMBER 366 CONTINUED

ŀ	224	15
1	229	14
1	234	14
I	238	13
I	243	13
1	248	13
J	2.53	3.2
I	257	12
J	262	12
1	267	- 11
I	272	10
1	276	10
ŀ	281	10
1	286	10
I.	291	9
1	2 <b>9</b> 6	9
1	300	9
1	305	. 8

ROUND NUMBER -- 315

PROJECTILE MASS (GM) -- 9.590

PROJECTILE TYPE --W-W, WC. .38 SPEC PROJECTILE VELOCITY (MPS) --318.52

PROJECTILE DE	FORMATION	***	I CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM) -6 18 48 78 109 169 178	PRESENTED AREA (MM**2) 123 107 119 117 111 106 108	AREA (MM**2) 123 107 119 117 111 112 115	PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32 I 36	28 29 31 33 35 37 38 39	
	T. J. J. J. So C. VITY PRØF		101 106 1111 115 120 124 129 134 138 143 148 152 157 161 166 171 175 180 184 189 194 198 203 208	40 40 40 40 40 41 40 41 40 41 40 40 39 38 37 36 35 34 33 32 32 32 32 32 32 32 32 32	

## ROUND NUMBER 315 CONTINUED

I	222	18
I	226	17
Ī	231	17
ī	236	17
I	240	17
i	245	17
I	250	16
I	254	16
I	259	16
İ	263	15
Ī	268	14
Ī	273	14
I	277	13
I	282	13
Ţ	286	12
I	291	11
t	296	10
Ī	300	9
î	305	8
I	310	7
I	314	7
I	319	6
I	324	6
Ī	<del>-</del> -	_

ROUND NUMBER -- 316

PROJECTILE MASS (GM) -- 9.590

PROJECTILE TYPE --W-W, WC. .38 SPEC PROJECTILE VELCCITY (MPS) --494.69

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	
PENETRATION DISTANCE (MM) 31 61 87 111 149 154	PRESENTED AREA (MM**2) 196 146 146 143 145 125 131	CROSS-SECT AREA (MM**2) 196 146 146 144 146 125	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32 I 36 I 41	CAVITY RADIUS (MM) 47 50 53 54 56 57 58 58	
300	T T  -50 C AVITY PRO	50 100 FILE	1 46 1 50 1 55 1 59 1 64 1 68 1 73 1 77 1 82 1 86 1 91 1 96 1 100 1 105 1 110 1 114 1 119 1 123 1 128 1 132 1 137 1 141 1 146 1 151 1 155 1 160 1 164 1 178 1 183 1 187 1 192 1 196	57 56 55 51 49 46 44 43 41 38 33 32 31 29 26 21 19 18 16 15 14 12 11 9 8	
			1 201 1 206 1 210 1 213	6 6 5 5	

PROJECTILE TYPE -W-W. FJ. .45 AUTO PROJECTILE VELOCITY (MPS) -322.88 PROJECTILE DIAMETER (CM) - 1.153

PROJECTILE B	EFORMATION	****	I CAVITY HEASUR	EHENTS
PENETRATION DISTANCE EMM 18	PRESENTED ) AREA (HM**	CROSS-SECT	I I PENETRATION I DISTANCE (HM) I O	CAVITY RADIUS(HM) 18
46	101	101	1 4	20
82	98	98	1 9 1 13	21 23
117 157	97 86	98 87	, 15 I 18	24
13,	•••	•	1 23	25
			1 28	25
			32	26
			37	26
300 m	T / T	T	I 42 I 46	26 26
	/		I 51 I 56	26 26
T- 250 -			1 60 1 65	26 26
—- 13i			72	<b>26</b>
<sup>£2</sup> 800 ⊢		-	1 79 1 84	25 26
			1 88	26
<b>Z</b>			1 93	26
	)		3 98	25
+ 150 <del> </del>	\		1 103	24
<u>a</u>			1 107	24
<b>⊢</b> ∵	1		1 112 1 117	24 23
190 一	Ì		1 121	23
أسا	\		I 126	23
<u> </u>			1 131	23
53			1 135	22
30			1 140	23
	\		1 145	24
	1 \ 1	<u> </u>	1 149	23
o ⊢		53 100	1 154 1 159	23 24
-100	-50 0	* "	1 163	24
(	CAVITY PR	OF I L.E	1 168 1 173	24 25
		:	1 177	25 24
			1 187 1 191	25 26
			1 196	26 25
			1 205	25 25
		883	1 210 1 215	25 24
			1 219	24

#### ROUND NUMBER 69 CONTINUED

1	224	24
1	229	24
Ī	234	24
j	238	24
3	243	23
i	248 252	23 22
J	383	33
1	266	21
1	271	20
I	276	19
1	280	18
7	285	18
1	2 <del>9</del> 0	17
1	294	16
I	299	15
1	304	14
1	309	14
ì	313	13
1	0	0

PROJECTILE TYPE --W-W, FMJ, .45 ACP PROJECTILE VELOCITY (MPS) --283.46

PROJECTILE DIAMETER (CM) -- 11.481

_	PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS	-
	PENETRATION	PRESENTED AREA (MM**2) 78 87 82 67 42 115 134	CROSS-SECT AREA (NM**2) 84 88 89 90 90 115 134	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 22 I 27 I 32 I 36 I 41	CAVITY	
	1.0N DEPTH 000 - 000 - 000			I 45 I 50 I 54 I 59 I 64 I 68 I 73 I 77 I 82 I 86 I 91 I 95 I 100 I 104	32 33 33 33 32 31 30 30 29 29 29 29	
	150 L 190 L 50 L			I 109 I 114 I 118 I 123 I 127 I 132 I 137 I 141 I 146 I 150 I 155 I 159 I 164 I 168	31 32 33 33 32 32 32 32 32 32 32 31	
	-100 CF	-50 ° IVITY PRØF	T L.E	1 173 1 177 1 182 1 187 1 191 1 196 1 200 1 205 1 209 1 214	31 30 29 28 28 26 26 25 24	

#### RJUND NUMBER 331 CONTINUED

1	218	23
I	223	22
Ĭ	228	21
Ī	232	20
Ī	237	19
_		
ſ	241	18
ſ	246	17
Ţ	251	17
I	255	17
I	260	16
I	264	16
I	268	15
I	273	14
1	278	14
I	282	13
ī	287	12
I	292	11
I	296	10
1	301	10
I	305	9
I	310	8
I	315	7
Ī		•

ROUND NUMBER -- 332

PROJECTILE MASS (GM) --11.988

PROJECTILE TYPE --W-W, FMJ, .45 ACP PROJECTILE VELOCITY (MPS) --334.98

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) -6 21 55 92 129 202 214	PRESENTED AREA (MM**2) 93 103 99 93 89 37 23	CROSS-SECT AREA (MM**2) 93 103 99 93 93 88 75	PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 14 I 18 I 23 I 27 I 32 I 37	CAVITY RADIUS (MM) 24 25 26 27 28 30 30 31
			I 41 I 46	30 30
			I 50	30
202			I 55	31
300	"T / 1		I 60	31
			I 64	31
			I 69	31
平 250 -		-	I 73	31
1			I 78	31
<u> </u>			I 83 I 87	30 30
(-)		;	I 92	29
200 <u> </u>			1 72 I 97	29
NO			i 101	29
			I 106	29
F 150 F			î îii	29
T. 136			I 115	29
	/ '\		I 120	30
<del> </del>			I 124	29
W 100 -		. 🚽 ;	I 129	.28
<u>L</u>	)		I 133	27
ā.			I 138	26
Į.		:	I 143	25
50 <u>–</u>			I 147	24
	1	į .	I 152 I 157	24
		i i	I 161	24 23
2	1 \		I 166	24
g L.			1 170	23
-100	-50 0	50 100	I 175	21
C	AVITY PRØ	FILE :	I 180	21
			I 184	21
			I 189	21
			I 194	21
			1 198	21
			I 203	21
			207	22
			1 212	21
		1	I 217	21

#### ROUND NUMBER 332 CONTINUED

I	221	20
I	226	20
I	230	20
I	235	20
I	240	19
I	244	19
I	249	19
Ţ	254	18
Ī	258	18
I	263	18
I	267	18
ı	272	17
I	277	17
ľ	281	16
Ĭ.	286	16
I	290	15
I	295	14
I	300	13
I	304	12
I	309	11
I	314	10
Ţ	318	9
I	323	9
I		

ROUND NUMBER -- 333

PROJECTILE MASS (GM) --11.988

PROJECTILE TYPE --W-W, FMJ, .45 ACP PROJECTILE VELOCITY (MPS) --387.71

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) -3 27 66 108 151 230 243	PRESENTED AREA (MM**2) 101 88 93 97 96 0	CROSS-SECT AREA (MM**2) 101	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 22 I 27 I 32 I 36 I 41	CAVITY RADIUS (MM) 27 28 30 31 32 33 34 34
300 FNETRATION DEPTH 500 500 500 500 500 500 500 500 500 50	SC O SITY PROFI	0 100 LE	I 41 I 46 I 50 I 55 I 59 I 64 I 69 I 73 I 78 I 82 I 87 I 91 I 105 I 110 I 115 I 119 I 124 I 128 I 133 I 138 I 142 I 147 I 152 I 156 I 161 I 165 I 170 I 175 I 179 I 184 I 188 I 193 I 198	35 35 35 34 34 33 31 31 32 32 32 32 32 31 31 31 30 30 30 30 30 29 28 28 28 28 28 28 28
		889 1 1		28 28 27 27

## RUUND NUMBER 333 CONTINUED

I	221	26
I	225	26
I	230	25
I	234	24
1	239	24
I	244	22
I	248	22
I	253	21
I	258	21
I	. 262	20
I	267	19
I	271	19
I	276	18
I	281	17
Ţ	285	17
1	290	16
I	294	15
1	299	14
I	304	13
I	308	12
I	313	11
1	318	11
Ŧ	- = -	

PROJECTILE TYPE --W-W, FMJ, .45 ACP PROJECTILE VELOCITY (MPS) --355.09

PROJECTILE	DEFORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (M -2 28 66 110 156 256 273	PRESENTED 4) AREA (MM**2) 97 104 99 101 108 108	CROSS-SECT AREA (MM**2) 97 104 99	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 22 I 27 I 32 I 36	CAVITY RADIUS (MM) 23 24 25 26 27 27 27 27
309 -			I 41 I 45 I 50 I 55	27 27 27 27
# 850 -			I 59 I 64 I 69 I 73 I 78	26 27 27 26 25
200 - SOO -			I 82 I 87 I 92 I 96	26 26 26 25
150 E			I 101 I 106 I 110 I 115	25 25 25 24
H 100 -			I 119 I 124 I 129 I 133 I 138	24 23 23 23 22
50		ì	I 142 I 147 I 152 I 156	22 21 22 21
a 1 -100 -100	<u>l</u> <u>l</u>	50 100 FILE	I 161 I 166 I 170 I 175	21 19 19 20
			I 179 I 184 I 188 I 193 I 198	19 19 19 18 18
		891	I 203 I 207 I 212 I 216	19 18 17 17

## RUUND NUMBER 334 CONTINUED

1	221	17
I	225	16
Ī	230	16
Ī	235	16
ì	239	16
1	244	16
I	249	15
I	253	14
Ţ	258	14
ſ	262	14
I	267	14
I	272	14
Ī	276	13
1	281	12
I	286	12
I	290	12
I	295	11
į	299	10
ſ	304	10
I	309	10
I	313	10
I	318	9
I	322	9
Ī		•

ROUND NUMBER -- 329

PROJECTILE MASS (GM) --16.524

PROJECTI	LE DE	FORMATION		I CAVITY MEASUR	EMENTS	
PENETRAT DI STANCE -7 21 58 98 141 230 243		PRESENTED AREA (MM**2) 97 109 97 96 103 50 43	CROSS-SECT AREA (MM**2) 97 109 98 97 106 83 88	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32 I 36	CAVITY RADIUS (MM) 23 24 25 25 26 26 27 27	
300		1 1		I 41 I 46 I 50 I 55 I 59	27 28 28 28 28	
∓ 250 ← 0.				I 64 I 68 I 73 I 78	26 29 28 28 27	
GN DEP			-	I 82 I 87 I 91 I 96	27 26 25 26	
□ 150 □ ① ① □				I 100 I 105 I 110 I 114 I 119	26 26 26 25 24	
L 19C				I 123 I 128 I 133 I 137	24 24 23 23	
50 3				I 142 I 146 I 151 I 155 I 160	23 23 23 22 22	
	100 CF	-50 0 AVITY PRØF	FILE	I 165 I 169 I 174 I 179	22 22 22 <b>21</b>	
				I 183 I 188 I 192 I 197	20 21 21 20	
			893	I 201 I 206 I 210 I 215	19 19 19 19	

#### ROUND NUMBER 329 CONTINUED

Į	220	19
I	224	19
I	229	19
I	234	18
Ī	238	18
Ī	243	18
	<del>-</del> · ·	_
I	247	18
ľ	252	18
I	257	17
ľ	261	17
I	265	16
I	270	16
I	275	15
Ĭ	279	15
I	284	15
I	289	14
Ī	293	14
1	298	13
I	302	13
I	307	12
I	312	11
I	316	10
I	320	9
I		

ROUND NUMBER -- 330

PROJECTILE MASS (GM) --16.524

PROJECTILE TYPE --W-W, LRN, .45 ACP PROJECTILE VELOCITY (MPS) --375.21

PROJECT	ILE DE	FORMATION	**************************************	I CAVITY MEASUR	EMENTS
PENETRA DI STANC -4 26 67 111 157 254 269		PRESENTED AREA (MM**2) 94 105 102 106 107 73 64	CROSS-SECT AREA (MM**2) 94 105 102 106 107 90 86	I PENETRATION I DISTANCE (MM) I 9 I 4 I 9 I 14 I 18 I 23 I 28 I 32 I 37	25 27 28 29 29 30 30 30
300		T   T		I 41 I 46 I 51 I 55 I 60 I 65 I 69	30 30 30 29 30 30
3N DEPTH			-	I 74 I 79 I 83 I 88 I 93 I 97	30 30 30 29 28 28
NET 150 150 100				I 102 I 106 I 111 I 116 I 120 I 125 I 130	29 28 27 27 28 27 26
ы a 50			-	I 134 I 139 I 144 I 149 I 153 I 158	25 24 25 25 25 24 23
- -		-50 C VITY PRØF	50 100 ILE	I 162 I 167 I 172 I 176 I 181 I 186	23 23 23 23 22 21
			895	I 190 I 195 I 200 I 204 I 209 I 214 I 218	20 19 20 20 20 20 20

## ROUND NUMBER 330 CONTINUED

1	223	19
I	228	19
I	232	19
I	237	18
I	242	18
1	246	17
Ī	251	17
Ī	256	17
Ī	260	17
Ī	265	16
Ī	270	16
ī	274	16
ì	279	15
ī	284	15
i	288	15
Î	293	14
î	297	13
ì	302	12
Ì	307	11
ì	312	10
i	316	9
Ī	321	8
A. T	361	Q

PROJECTILE TYPE -ZERO, JHP PROJECTILE VELOCITY (MPS) -154.96

PENETRATION PRESENTED CRGSS-SECT I PENETRATION CAVITY DISTANCE (MM) AREA (MM**2) AREA (MM**2) I DISTANCE (MM) RADIUS(MM)  33	PROJECTIL	E DEFORMATION	I CAVITY MEASUR	EMENTS	
33	DISTANCE	(MM) AREA (MM**2)	CRGSS-SECT AREA (MM**2)	I PENETRATION I DISTANCE (MM)	
51 51 1 13 8 9 1 22 10 1 27 10 1 36 9 1 32 10 1 36 9 1 32 10 1 36 9 1 45 9 1 45 9 1 55 8 1 55	33	48	48		
1					
1   22   10   10   10   10   10   10	. 68	51	21		
1   27   10   10   10   10   10   10   10   1	•				
1 32 10   1 41 9   1 41 9   1 45 9   1 50 8   1 55 8   1 55 8   1 55 8   1 55 8   1 55 8   1 64 7   1 69 7   1 73 7   7 8   7 8 7   7 8					
300    1					
# 250					
# 250	300				
# 250    1	. 1	1 . 1	'		
1					
1 64 7   1 69 7   1 73 7   1 78 7   1 78 7   1 78 7   1 82 7   1 82 7   1 92 6   6   1 92 6   6   1 105 5   5   1 110 5   1 110 5   1	T 050				
1	二 ZSU	<del></del>	7		
1	<u> </u>			• •	
1	<u> </u>				7
150		))			
150	$\boldsymbol{z}$	1			_
150		<b> </b>	·		_
1 124 4 4 1 129 4 1 133 4 1 138 4 1 147 4 1 152 3 1 156 4 1 165 4 1 165 4 1 170 4 1 174 3 1 179 4 1 184 4 1 188 4 1 193 4 1 198 5 1 202 5 1 207 5 897 1 210 2	15D				
1 124 4 4 1 129 4 1 133 4 1 138 4 1 147 4 1 152 3 1 156 4 1 165 4 1 165 4 1 170 4 1 174 3 1 179 4 1 184 4 1 188 4 1 193 4 1 198 5 1 202 5 1 207 5 897 1 210 2	Œ 100	[ ]	7		
1 124 4 4 1 129 4 1 133 4 1 138 4 1 147 4 1 152 3 1 156 4 1 165 4 1 165 4 1 170 4 1 174 3 1 179 4 1 184 4 1 188 4 1 193 4 1 198 5 1 202 5 1 207 5 897 1 210 2	<u>~</u>	{ }			5
1 124 4 4 1 129 4 1 133 4 1 138 4 1 147 4 1 152 3 1 156 4 1 165 4 1 165 4 1 170 4 1 174 3 1 179 4 1 184 4 1 188 4 1 193 4 1 198 5 1 202 5 1 207 5 897 1 210 2	<u>⊢</u>	} }			5
1 124 4 4 1 129 4 1 133 4 1 138 4 1 147 4 1 152 3 1 156 4 1 165 4 1 165 4 1 170 4 1 174 3 1 179 4 1 184 4 1 188 4 1 193 4 1 198 5 1 202 5 1 207 5 897 1 210 2	三 180	<del> </del>			4
I 129 4 I 133 4 I 138 4 I 142 4 I 147 4 I 152 3 -100 -50 0 50 100 I 156 4 CAVITY PROFILE I 165 4 I 170 4 I 174 3 I 179 4 I 188 4 I 188 4 I 193 4 I 193 4 I 198 5 I 202 5 I 207 5	L.	<i>\</i>			4
1 133 4 1 138 4 1 142 4 1 147 4 1 152 3 -100 -50 0 50 100 1 156 4 CAVITY PROFILE 1 165 4 1 170 4 1 174 3 1 179 4 1 184 4 1 188 4 1 193 4 1 198 5 1 202 5 1 207 5	Δ.				=
I 138 4 I 142 4 I 147 4 I 152 3 I 156 4 CAVITY PROFILE I 165 4 I 170 4 I 174 3 I 179 4 I 184 4 I 193 4 I 198 5 I 202 5 I 207 5	511	_			•
I 142 4 I 147 4 I 152 3 I 156 4 CAVITY PROFILE I 165 4 I 170 4 I 174 3 I 179 4 I 184 4 I 193 4 I 198 5 I 202 5 I 207 5	0.0		. 7		4
I 147 4 I 152 3 I 156 4 CAVITY PROFILE I 165 4 I 170 4 I 174 3 I 179 4 I 184 4 I 188 4 I 193 4 I 198 5 I 202 5 I 207 5					4
-100 -50 0 50 100 I 156 4  CAVITY PROFILE I 165 4  I 170 4  I 174 3  I 179 4  I 184 4  I 188 4  I 193 4  I 198 5  I 202 5  I 207 5  897 I 210 2					4
I 161 4 CAVITY PROFILE I 165 4 I 170 4 I 174 3 I 179 4 I 184 4 I 188 4 I 193 4 I 198 5 I 202 5 I 207 5	0 1				
HVITY PROFILE I 165 4 I 170 4 I 174 3 I 179 4 I 184 4 I 188 4 I 193 4 I 198 5 I 202 5 I 207 5 897 I 210 2	-1:	00 -50 0	50 100		4
I 170 4 I 174 3 I 179 4 I 184 4 I 188 4 I 193 4 I 198 5 I 202 5 I 207 5 897 I 210 2		CAVITY PROF	TIF		4
I 174 3 I 179 4 I 184 4 I 188 4 I 193 4 I 198 5 I 202 5 I 207 5 897 I 210 2		4,11,11,11,101	<u> </u>		4
I 179 4 I 184 4 I 188 4 I 193 4 I 198 5 I 202 5 I 207 5 897 I 210 2					
I 184 4 I 188 4 I 193 4 I 198 5 I 202 5 I 207 5 897 I 210 2			•		4
I 193 4 I 198 5 I 202 5 I 207 5 897 I 210 2			,	I 184	
I 198 5 I 202 5 I 207 5 897 I 210 2					4
I 198 5 I 202 5 I 207 5 897 I 210 2					
897 I 210 2				I 198	5
897 I 210 2					5
05/ 1 210 2			807		) 2
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				I 210	0

# PROJECTILE TYPE -ZERG+ JHP PROJECTILE VELOCITY (MPS) +232-14

PR	OJECTILE DE	FORMATION		I CAVITY MEASUR	 EMENTS
	NETRATION STANCE (MM) 6 24 47 69 90	PRESENTED AREA (MM**2) 62 103 108 93 103	AREA (MM**2) 62 103 109 95 104	I 0 I 4 I 9 I 13 I 18 I 22 I 27	11 12 13 17 18 20 21
PENETRATION DEFTH		-50 o VITY PROF	50 100	32 I 32 I 36 I 41 I 45 I 50 I 55 I 57 I 68 I 73 I 82 I 87 I 92 I 96 I 101 I 105 I 110 I 114 I 119 I 124 I 128 I 133 I 138 I 142 I 156 I 161 I 165 I 170	22 22 22 21 20 19 18 18 17 16 16 15 14 13 12 11 10 10 10 9 8 8 7 7 7 6 6 6
				I 174 I 179 I 184 I 188 I 193 I 197 I 202 I 206 I 211 I 212	5 5 5 4 4 4 4 2 1

ROUND NUMBER - 170

PROJECTILE MASS (GM) - 6.480

PROJECTILE TYPE -ZERO, JHP PROJECTILE VELOCITY (MPS) -286.47

PROJECTILE DE	PROJECTILE DEFORMATION			EMENTS
PENETRATION CISTANCE (MM) 9 29 55 79 101	PRESENTED AREA (MM**2) · 74 151 144 156 138	CRCSS-SECT AREA (MM**2) 74 151 144 157 141	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32	CAVITY RADIUS (MM) 19 21 23 26 29 31 32 33
300			1 36 I 41 I 46 I 51 I 55	34 34 35 35 34
H 250		-	I 60 I 65 I 69	33 32 31
200 N		_	1 74 I 79 I 83 I 88 I 93	29 28 27 26 25
PENETRATION 1000 1 10000 1 1000 1 1000 1 1000 1 1000 1 1000 1 1000 1 1000 1 1000 1 100		-	97 I 102 I 107 I 111	24 23 22 20
100 -			116 1 121 1 125 1 130	19 18 17 16
50			1 135 1 139 1 148 1 153	15 14 12 12
-100	-50 0 AVITY PRØF	50 100	158 163 167 172	10 9 9
Ų l	AVIII EKUF	] ] ]	1 177 I 181 I 186 I 190	7 6 6 6
		899 1	1 195 1 200 1 204 1 209 1 214	5 5 5 5 4
		1	0 I 0	0 0

PROJECTILE TYPE -ZERG, JHP PROJECTILE VELOCITY (MPS) -330.94

				CAVITY MEASUREMENTS	
			AREA (MM**2)		CAVITY RADIUS(MM)
	10	97	97	t o	18
	33 62	118 112	118 114	t 4	22
	89	118	119	I 9 I 13	26 30
	113	120	121	I 18	33
				I 23	36
				I 27	38
				I 32	39
				1 36	39
^	0.0			I 41	39
ز	00 [	T		I 45	39
				I 50 I 55	38
				I 59	37 36
II 2	50 -		_	I 64	34
F			)	I 68	33
۵. الما				I 73	32
1		} }		I 78	31
	00 -	/ \	7	I 82	30
2		/		1 87	29
<u> </u>		/ \	İ	1 92	28
	50 F	/ \	1	I 96	27
II.		/	!	I 101 I 105	26
ir:	*		i	I 105 I 110	25 24
ب الما		/	!	I 114	22
<b>Ž</b> 1	00 <del> -</del>		1	I 119	21
نعا		/	i	1 124	19
(1,	i i	/		1 128	19
	50	/		I 133	18
	1.24.			1 138	17
	!	1		I 142	17
	ĺ	. \ . /		1 147	16
	(a   1	1 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		I 151 I 156	15
	- 100 -	-50 e		I 160	14 13
		VITY PROF		I 165	12
	CH	ATTL LEGE	1 L. C.	I 170	11
				I 174	īī
				I 179	10
			·	183	10
				188	9
				I 193	8
				I 197	7
			,	I 202 I 206	6
				I 206 I 211	5 5
				1 216	5
			•		-

#### ROUND NUMBER 169 CONTINUED

I	220	4
I	225	5
I	229	4
1	234	2
I	0	0
I	0	. 0

# PROJECTILE TYPE -ZERC. JHP PROJECTILE VELOCITY (MPS) -391.27

PROJECTILE DE	FORMATION		CAVITY MEASUR	EMENTS
PENETRATION CISTANCE (MM) 13 40 74 102 130	PRESENTED CRCSS- AREA (MM**2) AREA ( 96 96 143 144 119 124 128 135 126 126	(MM**2) I 5 I 6 I 6 I	PENETRATION DISTANCE (MM) 0 4 9 13 18 23 27	CAVITY RADIUS (MM) 26 31 35 38 40 42 43
PENETRATION DEPTH 300 120 120 120 120 120 120 120 120 120 1			32 37 41 46 51 55 60 65 70 74 79 83 88 93 97 102 107 111 116 121	44 45 44 42 41 38 35 33 31 28 25 24 22 21 21
50 0 -100	-50 0 50 CAVITY PROFILE	1 I I I I I I I I I I I I I I I I I I I	135 139 144 149 153 158 163 167 172 177 181 186 190 195 200 205 209 214 219	20 20 19 18 18 17 17 15 13 12 12 11 11 9 8 8

#### ROUND NUMBER 167 CONTINUED

I	223	6
I	228	6
I	232	6
I	237	5
I	242	5
I	246	4
Ī	249	1
I	0	O
I	Ō	0

ROUND NUMBER - 222

PROJECTILE MASS (GM) = 7.128

PROJECTILE TYPE -ZERO, JHP PROJECTILE VELOCITY (MPS) -266.20

· · · · · · · · · · · · · · · · · · ·					I CAVITY MEASUR	
		CE (MM)	PRESENTED AREA (MM**2)	CROSS-SECT AREA (MM++2)	I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM
		9	86	86	i o	13
	3	0	111		i 6	14
	5	5	112	113	1.1	17
	7	9	116	118	1 17	21
	1.0	1	106	106	1 23	22
				• "-	1 29	23
					1 35	23
					1 41	23
					1 47	23
	300	f			1 53	21
			1 !	1	1 59	20
					I 65	20
					I 71	19
I	250	$\vdash$			I 77	Su
<u> </u>					I 83	19
لخا					I 88	19
$\overline{\Box}$			.		I 95	17
	200	-			I 100	16
		İ			1 106	15
					112	13
) 1					T 118	12
H	150			7	1 124	11
21					I 130	10
_			/ \		1 136	10
للنا	1.0.0		/		1 142	9
111 22 111	100	Ţ	/		1 48	5
لسا					154	8
Ĺ,			)		1.60	8
	50	<u> </u>	/		166	· 8
	O.C.	1			172	8
		į			178	7
			\ /		184	<b>7</b> .
	Ð		<u> </u>	<u> </u>	189	<u>6</u>
			rra es		195	5
	-			100	201	5
		CAV	ITY PROFI	LE.	207	5
				}	213	5
				1 1	219 221	5 4

PROJECTILE MASS (OM) + 7.128

PROJECTILE TYPE -ZERO, JHP PROJECTILE VELOCITY (MPS) -292.23

PR	OJECTILE D	EFORMATION	I CAVITY MEASUR	EMENTS	
	NETRATION STANCE (MM 9 30 56 60 101	PRESENTED ) AREA (MM++2) - 82 - 143 - 144 - 139 - 138		I PENETRATION I DISTANCE (MM) I 0 I 6 I 11 I 17 I 23 I 29	CAVITY RADIUS (MM) 15 17 22 26 28 30
	300			I 35 I 41 I 47 I 53 I 59	31 31 30 29 29
EPTH	250			I 65 I 71 I 77 I 83 I 89	28 26 25 24 22
	200		-	I 95 I 101 I 107 I 113	21 19 18 16
PENETRATION	150		-	I 119 I 125 I 131 I 137 I 143	15 14 12 11
PENE	100			1 149 1 155 1 161 1 167	9 8 7 6
	50			1 173 1 179 1 185 1 191	5 5 5. 5
	-100	-50 0 NITY PROF	50 100	I 195 I 0 I 0	4 0 0

PROJECTILE TYPE -ZERO, JHP PROJECTILE VELOCITY (MPS) -311.98

PROJECTILE DEFORMATION I				I CAVITY MEASUR	EMENTS	
	NETRA' STANCI		PRESENTED AREA (MM**2) 80	CROSS-SECT AREA (MM**2) 81	I I PENETRATION I DISTANCE (MM) I O	CAVITY RADIUS (MM 17
	32		171	172	1 5	21
	58		183	183	1 11	24
	82		158	164	1 17	28
	104		159	165	I 23	30
					1 29	32
					1 35	34
					I 41	35
	300		4 TATE 144 TRANS	<del></del>	I 47	34
	100			1	1 53	34
					I 59	33
					I 65	35
$\perp$	250	-		_	I 71	30
<u> </u>		-			I 77	28
ا لغا					1 82	28
		1			1 88	26
	200	-	part.		t 94	25
$\boldsymbol{z}$		}	(		I 100	23
$\Box$			} \		I 106	24
<b>}</b> 4			/ \		1 112	22
ļ	150		/ \		I 118	21
Œ			/		I 124	20
(Y					I 130	18
141					I 136	16
빌	100	<u> </u>	/		1 142	14
لبا			/		1 148	12
<u> </u>			)		1 154	11
		İ			I 159	9
	50	<del> </del>	1		I 165	· 8
					1 171	
					1 177	5
		1	_ \ _ /		1 183	<b>5</b> ,
	C	L.,			1 189	6 5 5 6 5 5
	_ 1	100 -	-50 0	50 100	I 195	5
					I 197	5
		LH	VITY PROF	11.5	1 0	0

ROUND NUMBER - 210

PROJECTILE MASS (GM) = 7.126

PROJECTILE TYPE -ZERO, JHP PROJECTILE VELOCITY (HPS) +363.72

PROJECTI	E DEI	FORMATION	<del></del>	I CAVITY MEASUR	EMENTS
PENETRAT DISTANCE 12 37 67 94 119		PRESENTED AREA (MM**2) 102 125 109 115 102	CROSS=SECT AREA (MM++2) 102 125 129 118 109	I PENETRATION I DISTANCE (MM) I 0 I 5. I 11 I 17 I 23 I 29 I 35	CAVITY RADIUS(MM) 26 32 36 39 42 44
300		<u> </u>		I 41 I 47 I 53 I 58 I 64	45 45 44 43 42
506 H 526	_			I 70 I 76 I 82 I 88 I 94 I 100	40 38 36 33 31 29
NO L 150				I 106 I 112 I 117 I 123 I 129 I 135	26 25 24 23 23
DEN 100 PEN 10	_			I 141 I 147 I 153 I 159 I 165 I 171	21 21 19 18 16 15
- a - 16		-50 0 VITY PRØF	TIF	I 176 I 182 I 188 I 194 I 200 I 206	14 13 11 9 8 6
	Ų ( 1			I 212 I 218 I 220	6 4 3

PROJECTILE MASS (GM)- 7.128

PROJECTILE TYPE -ZERO, JHP

PROJECTILE VELOCITY (MP8) -412.45

ROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 19 47 77 105	PRESENTED AREA (MM**2) 124 156 110 62	CROSS=SECT AREA (MM**2) 125 156 168	I PENETRATION I DISTANCE (MM) I O I 6 I 12 I 18	CAVITY RADIUS (MM 32 37 43 47
132	94	143	I 24	50
			I 30 I 36	50 52
			I 42 I 46	54 54
300			1 54	54
540		l	I 60	53
			I 66	52
- 250 -			I 72 I 78	51 50
-			1 84	48
			1 90	45
-\			1 96	42
288 ⊢		-	I 102 I 108	39 36
			1 114	32
<u>-</u>			1 120	30
_ 150 -			I 126	27
	) (	i	1 132	24
-·			I 138 I 144	23 23
100 -	\	\	I 150	23
.1	/		1 156	22
			I 162	20
50			I 168 I 174	18 17
,,,			I 180	16
1	(		1 186	15
			I 192	1.4
g L	e de salación en esta de la compansión de la compansión de la compansión de la compansión de la compansión de l La compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compa		I 198	12
-100	-50 0	36 100	I 204 I 210	11 9
CF	NITY PROF	I L.E.	I 216	7
1			1 222	6
_			1 228	5
			1 234	4
			1 237 I 0	3 0

ROUND NUMBER - 208

PROJECTILE MASS (GM) - 7,125

PROJECTILE TYPE -ZERO, JHP

PROJECTILE VELOCITY (MPS) -453.57

PROJECTILE DE	FORMATION		I CAVITY MEASUR!	EHENTS
PENETRATION DISTANCE (MM) 15 44 79 107 133		AREA (MM++2) 143 162 167 163	I PENETRATION I DISTANCE (MM) I 0 I 6 I 11 I 18 I 23 I 29 I 35 I 41	CAVITY RADIUS(MM) 31 37 43 48 51 54 55
300 H 250 -			I 47 I 53 I 59 I 65 I 71 I 77 I 83 I 88 I 95 I 100	56 58 58 57 55 54 52 49
ENET RATION 1901			I 106 I 112 I 118 I 124 I 130 I 136 I 142 I 148 I 154	40 39 37 34 31 30 26 24
50 -100 CF	-50 C HVITY PROF	50 100 ILE	I 160 I 166 I 172 I 178 I 184 I 190 I 195 I 201 I 207 I 213	22 22 20 18 15 12 10 10
			I 219 I 225 I 231 I 235 I 0	6 5 5 4 0

PROJECTILE TYPE -ZERG, JHP PROJECTILE VELOCITY (MPS) -220.87

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION CISTANCE (MM) 6 23 45 66 86	PRESENTED AREA (MM**2) 62 90 114 109 98	CRCSS-SECT AREA (MM**2) 62 90 114 109 98	I PENETRATION I DISTANCE (MM) I 0 I 4 I 9 I 13 I 18 I 23 I 27 I 32	CAVITY RADIUS (MM) 11 11 12 15 17 19 21 22
300	T	<del></del>	I 37 I 41 I 46	23 23 23
H 250			I 51 I 55 I 60 I 65 I 69	22 21 21 20 19
A 200 N			I 74 I 79 I 83 I 88	19 18 17 16
100 - 150 -			I 93 I 97 I 102 I 107	15 14 13 12
H 100			I 111 I 116 I 121 I 125 I 130	11 11 10 9
50			I 135 I 139 I 144 I 149	8 8 7 7
	-50 0 VITY PROF	50 100 ILE	I 153 I 158 I 162 I 167	6 6 6 5
			I 172 I 177 I 181 I 186	5 5 5 5 5
			I 190 I 195 I 200 I 204	4 4 4
		910	I 209 I 213 I 0	4 0 0

ROUND NUMBER = 219

PROJECTILE TYPE -ZERO, JHP PROJECTILE VELOCITY (MPS) -254.85

 PROJECT!	LE DEI	FORMATION		I CAVITY MEASUR	EMENTS
PENETRAT DISTANCE 7 27 52 77 101		PRESENTED AREA (MM++2) 63 98 117 104 115	CROSS-SECT AREA (MM*#2) 63 99 118 104 116	I PENETRATION I DISTANCE (MM) I D I 5 I 1.1 I 17 I 23 I 29 I 35 I 41	CAVITY RADIUS(MM) 11 12 16 18 20 22 22 21
300				I 47 I 53 I 58	20 20 19
300			1	I 64 I 70 I 76	17 16 16
프 250 - 프		· 		1 82 1 88 1 94	17 16 16
00 DE			1	I 100 I 105 I 111	15 15 14
<del></del> -	<b>-</b> .		1	I 117 I 123 I 129 I 135	12 11 9 8
VETRAT 100				I 141 I 147 I 153	8 7 6
ш С.				I 158 I 164 I 170	6 6 6
50				I 176 I 182 I 188	5 5 5
0 -	L	-50 0	50 100	I 194 I 200 I 206	5 5 4
لـ	С	AVITY PRØ	FILE	I 211 I 217 I 223 I 229	4 4 4
				1 232 1 234	4 3

PROJECTILE TYPE -ZERO, JHP PROJECTILE VELOCITY (MPS) -283.80

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM)	_ · · · · · · _ · · · · · · · · · · · ·	7 <del>-</del> 7 7	I I PENETRATION I DISTANCE (MM)	CAVITY RADIUS (MM
10 31	75 119	76 120	I 0 I 6	14 17
57	114	114	i ii	20
82	143	143	i iž	23
104	131	133	I 23	25
			I 59	27
			I 35	28
			1 41	29
300		<del></del>	I 47 I 53	29 29
	1 1	'	1 59	29 29
		1	I 65	28
II 250		}	I 71	27
- 1		7	77	25
1_	$\Gamma$		1 83	24
il □		į	1 89	24
200 -	. ) }	_	1 94	23
2 0	1		1 100	22 21
D	/ /		I 106 I 112	21
	/ /		I 118	19
150	/	7	1 124	18
150			I 130	17
-	/		I 136	16
100	/	_	I 142	15
			1 148	14
			I 154	13
F7.13			I 160 I 166	12
50			I 172	9
			1 178	8
			1 184	7
0			I 190	6
-100 -5	50 0 50	100	1 195	5
			I 201	5
CHV	ITY PROFI	: ·	1 208	5
			I 213 I 219	5 5
			i 219 I 225	5 5
			1 227	4
			1 229	4
			I 0	n

PROJECTILE TYPE -ZERO, JHP PROJECTILE VELOCITY (MPS) -286.47

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION Cistance (MM)		CRCSS-SECT AREA (MM**2)	I I PENETRATION I Distance (MM) I O	CAVITY RADIUS (MM) 16
30	138	138	I 4	18
<b>57</b> 82	139 140		I 9 I 13	21 24
106	139		I 18	26
			I 22 I 27	27 29
			I 27 I 32	30
300			I 36	31
300		)	I 41	32
			I 46 I 50	32 31
<u> </u> 250 –			I 55	31
÷ 250			I 59	30
<u>د</u>	$\cap$	ľ	I 64 I 69	29 29
200			I 73	28
			I 78	27
NO			I 82 I 87	26 25
<del>-</del> 150 -	/ \		I 92	24
CT.	/ \		I 96	23
<del>L</del>			I 101 I 106	22 21
	/	i	I 110	20
N 100	/		I 115	19
۵.		l l	[ 119	19
50		1	I 124 I 129	18 17
50			I 133	17
	\ /	3	I 138	16
0		•	I 143 I 147	15 14
	-50 O (		I 152	13
	VITY PROF	50 100	I 156	12
UΠ	A T I 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		I 161 I 166	11 10
			1 170	10
			175	9
			I 179 I 184	8 7
			I 189	6 .
			I 193	6
			I 198 I 203	5 5 5 5
		913	I 203 I 207	5
		-15	1 212	5
			I 216	5

### ROUNE NUMBER 165 CONTINUED

I	221	5
I	223	4
Ĭ	0	0

ROUND NUMBER - 217

PROJECTILE TYPE +ZERO, JHP PROJECTILE VELOCITY (HPS) -297.66

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 8 30 58 83		AREA (MM##2)	I PENETRATION I DISTANCE (MM) I 0 I 5 I 12 I 17 I 23 I 29 I 35	CAVITY RADIUS(MM) 19 21 25 28 30 32 34
ENETRATION DEPTH 0001 0001 0001 0001 0001 0001 0001 00			I 41 I 47 I 53 I 59 I 65 I 71 I 77 I 83 I 89 I 95 I 101 I 107 I 113 I 119 I 125 I 131 I 137 I 143 I 149 I 149	35 35 34 33 32 32 31 30 29 26 27 25 24 23 21 20 18 16
50 0 -100	-50 0 AVITY PROF	50 100 ILE	I 161 I 167 I 173 I 179 I 185 I 191 I 197 I 203 I 208 I 215 I 220 I 226 I 228 I 0	13 11 10 9 8 7 6 6 5 5 5

PROJECTILE TYPE -ZERG. JHP PROJECTILE VELOCITY (MPS) -326.34

PROJECTILE D	EFORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM 10 33	) AREA (MM**2) - 84 202	CROSS-SECT AREA (MM**2) 84 202	I I PENETRATION I DISTANCE (MM) I O I 4	CAVITY RADIUS (MM) 21 24
64 92	143 131	135	I 9 I 13	27 30
119	140		I 18 I 23	34 36
			I 27	37
			I 32	38
200			1 37	39
300	T	1 1	I 42 I 46	39 39
	<b>~</b>	1	1 40 I 51	38
_			Î 55	38
王 250 上		i i	1 60	37
<u>ال</u>		i i	[ 65	36
EL .			I 70 I 74	35 33
200	. \		i 79	32
N C	/ \		I 83	31
0 1		1	88 1	30
<u>—</u> 150 —			I 93	29 28
₵ '	/		I 98 I 102	27
¥			1 107	26
44 !			I 112	25
2 100		7	I 116	24
<u>ш</u> .	/		I 121 I 126	24 23
Ì			I 126 I 130	22
50 <del> </del>		-	t 135	21
			1 140	20
			I 144	19
0		_	I 149 I 154	18 18
-100	-50 0	50 100	I 158	18
	AVITY PROF		I 163	17
•			1 168	17
			I 172 I 177	16 15
			I 177 I 181	15
			I 186	14
			I 191	13
			I 195	12
			I 200 I 205	12 11
			I 210	10
		916	I 214	10
			I 219	9

#### ROUND NUMBER 164 CONTINUED

I	224	9
I	228	8
1	233	7
I	238	7
I	242	7
I	247	7
I	252	7
I	256	6
1	261	5
I	<b>26</b> 6	5
I	270	4
1	274	2

PROJECTILE TYPE -ZERO, JMP

PROJECTILE VELOCITY (MPS) -360,28

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 12 38 78 87	PRESENTED AREA (MM**2) 102 204 167 180	CROSS=SECT AREA (MM**2) 102 204 167	I PENETRATION I DISTANCE (MM) I 0 I 6 I 11	CAVITY RADIUS(MM) 22 28 32 37
122	185	181 185	I 18 I 23 I 29 I 35 I 41	40 43 44 46
300	<del></del>		I 47 I 53 I 59 I 65 I 71	47 47 47 45 43
II 250 -		-	T 77 I 83 I 89 I 95 I 101	41 39 37 34 31
200   Z ED ED   ED			1 106 I 112 I 118 I 124 I 130	30 28 28 27 25
N 103 -			I 136 I 142 I 148 I 154	24 22 22 21
50			I 160 I 166 I 172 I 178 I 184	20 19 17 16 14
-100	-50 0 AVITY PRO	50 100 FILE	I 189 I 196 I 201 I 207 I 213	12 12 11 10 8
. Uf	TVIII INCI	1 L.L.	I 219 I 225 I 231 I 237	7 6 6 5 5
			I 243 I 249 I 252 I n	5 5 3 0

ROUND NUMBER - 203

PROJECTILE MASS (GM) = 8.100

PROJECTILE TYPE -ZERO, JHP PROJECTILE VELOCITY (MPS) -379.10

 PROJECT	ILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRA DISTAND 14 40 72 100 128	E (MM)	PRESENTED AREA (MM** 111 141 115 105 109	CROSS-SECT 2) AREA (MM++2: 111 141 115 107 109	I PENETRATION ) I DISTANCE (MM) I 0 I 5 I 11 I 18 I 23 I 29 I 35 I 41	CAVITY RADIUS(MM) 24 29 34 38 40 42 44
300		T T		I 47 I 53 I 59 I 65	45 45 46 45
工 250 0	_			I 71 I 77 I 63 I 69 I 94	43 40 38 36 34
IUN DE	_			I 100 I 106 I 112 I 118 I 124	32 30 28 25 23
는 150 원 분				I 130 I 136 I 142 I 148	25 23 21 20 20
100 EN EN EN EN EN EN EN EN EN EN EN EN EN				I 154 I 160 I 165 I 172 I 178	19 17 18 16
0	100	<u> </u>	50 100	I 184 I 190 I 195 I 201 I 207	14. 12 11 11 10
		VITY PRO		I 213 I 219 1 225 I 231 I 237	9 8 7 7 6
				I 243 I 249 I 254 I 0	5 5 4 0

PROJECTILE TYPE -ZERG, JHP PROJECTILE VELOCITY (MPS) -382.91

PROJECTILE DE	FORMATION	=	CAVITY PEASUR	EMENTS
PENETRATION CISTANCE (MM) 14 40 75 103 132	AREA (MM**2) AREA 94 120 125 106	94 I .20 I	PENETRATION DISTANCE (MM) 0 4 9 13 18	CAVITY RADIUS (MM) 20 26 31 36 39 41 42 44
250 CEPTH 520 CE	-50 0 50 AVITY PROFILE	I	37 41 46 51 55 60 64 69 74 78 83 88 92 97 102 106 111 116 120 125 129 134 139 144 148 153 157 162 167 171 176 181	44 44 45 45 45 44 43 42 40 39 37 35 33 28 27 26 25 24 23 22 22 21 20 18 17 16 15 15 15
	•	1 1 1 1 1 920. 1	190 195 199 204 209 213	14 13 12 11 10 10 9

# ROUND NUMBER 163 CONTINUED

I	222	7
I	227	7
I	232	6
I	236	6
I	241	5
I	246	5
Ī	250	5
I	<b>25</b> 5	4
I	260	4
I	264	3
I	266	3
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PROJECTILE TYPE -ZERO, JHP PROJECTILE VELOCITY (MPS) -428.09

PROJECTILE DE	FORMATION		I CAVITY MEASUR	EMENTS
PENETRATION DISTANCE (MM) 16 45 80 110 138		D\$\$-9ECT EA (4M**2) 136 148 134 161 152	I PENETRATION I DISTANCE (MM) I 0 I 6 I 12 I 15 I 23 I 20 I 35	CAVITY RADIUS (MM) 31 35 40 43 46 49
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